

DOCUMENT RESUME

ED 110 153

JC 750 460

AUTHOR Johnston, Stephen A.; Jolley, Hazel R.
 TITLE North Carolina Community College System Operating Program, 1975-1980. Research Memorandum.
 INSTITUTION Research Triangle Inst., Durham, N.C.
 SPONS AGENCY North Carolina State Dept. of Community Colleges, Raleigh.
 PUB DATE Apr 75
 NOTE 80p.; Not available in hard copy due to marginal legibility of original document. Appendix C has been deleted due to poor legibility. For a related document, see JC 750 459

EDRS PRICE MF-\$0.76 PLUS POSTAGE. HC Not Available from EDRS.
 DESCRIPTORS *Employment Projections; *Enrollment Projections; *Job Training; *Junior Colleges; Manpower Needs; *Regional Planning; Statewide Planning; Technical Education; Technical Institutes; Vocational Education

IDENTIFIERS *North Carolina

ABSTRACT

Using the systemwide enrollment information from the 1975-85 strategic plan for the North Carolina Community College System, this five year (1975-80) operating program plan presents enrollment projections for major program areas by multi-county planning regions and individual institutions. Projections are consistent with past experience, projections of economic activity in the region, and the estimates of unmet training needs in the region as of 1970. Modified institutional projections are compared with the separate projections made by the colleges in 1974. In addition, this document includes projections of employment in 1985 for each of 36 industry groups cross-classified by 128 occupational groups, projections of requirements within each occupational group during 1970-1985, and the training needed for these occupations. Note that these projections are based on manpower projections and do not necessarily relate to the state's mandate for comprehensive education. (Author/MJK)

 * Documents acquired by ERIC include many informal unpublished *
 * materials not available from other sources. ERIC makes every effort *
 * to obtain the best copy available. nevertheless, items of marginal *
 * reproducibility are often encountered and this affects the quality *
 * of the microfiche and hardcopy reproductions ERIC makes available *
 * via the ERIC Document Reproduction Service (EDRS). EDRS is not *
 * responsible for the quality of the original document. Reproductions *
 * supplied by EDRS are the best that can be made from the original. *

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

**NORTH CAROLINA
COMMUNITY COLLEGE SYSTEM**

**OPERATING PROGRAM
1975-1980**

BEST COPY AVAILABLE

**PREPARED FOR
NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES
BY
RESEARCH TRIANGLE INSTITUTE**

ED110153

JC 760 460

RM-26U-976-3

April 1975

RESEARCH MEMORANDUM

North Carolina
Community College System
Operating Program
1975-1980

by

Stephen A. Johnston
Hazel R. Jolley

Prepared for

North Carolina Department of Community Colleges

PREFACE

The North Carolina Community College System Operating Program contained herein presents projections of enrollments by institution for the 1975-1980 period based on projections of occupational requirements presented in a previous document in this series entitled North Carolina Community College System Strategic Plan, 1975-1985 dated January, 1975. These research efforts were conducted by the Research Triangle Institute with the full cooperation and assistance of the North Carolina Department of Community Colleges under terms of an Agreement with the North Carolina State Board of Education dated March 7, 1974.

Several resource materials were utilized in these efforts. Population projections were prepared with the aid of a population projection computer program maintained by the North Carolina Office of State Planning. Projections of employment related to the population projections were developed with the aid of industrial employment projections in the 1972 OBERS Projections of Regional Economic Activity in the United States, prepared by the U.S. Bureau of Economic Analysis and the U.S. Economic Research Service for the U.S. Water Resources Council. Refinements to the projected population and employment totals are documented in the North Carolina Community College System Strategic Plan, 1975-1985 and in a previous RTI report entitled North Carolina Educational Policy Plans for the 1970's dated April, 1975 that was prepared for the North Carolina Manpower Council. A translation of the projections of industrial employment into occupational employment was made with the assistance of a computer tape containing 1970 and 1980-projected occupational employment by industry that was purchased from the U.S. Bureau of Labor Statistics. Base period (1970) occupation by industry employment for each North Carolina county was obtained from a computer tape purchased from the U.S. Bureau of the Census by the Occupational Research Unit of the North Carolina Department of Public Instruction. Educational attainment by occupation information was obtained from the U.S. Bureau of the Census and projections of educational attainment by occupation group were prepared with the aid of projections prepared by the U.S. Bureau of Labor Statistics in Bulletin 1809, The U.S. Economy in 1985.

Projections of Community College System requirements related to the projected occupational training requirements were developed with the aid of

the Annual Enrollment Reports prepared by the North Carolina Department of Community Colleges and the Statistical Abstracts of Higher Education prepared by the General Administration of the University of North Carolina. These sources were also employed to disaggregate State and regional projections into institutional and program area detail, in conjunction with enrollment projections and plans submitted by individual institutions to the North Carolina Department of Community Colleges during 1974. Further documentation on sources and procedures used in these research efforts are available from the authors on request.

TABLE OF CONTENTS

	<u>Page</u>
PREFACE	1
LIST OF EXHIBITS.	iv
LIST OF FIGURES	iv
I. INTRODUCTION	1
II. PROJECTION METHODOLOGY SUMMARY	4
A. Introduction.	4
B. Summary of Projection Methodology Employed in Strategic Plan.	5
C. Summary of Projection Methodology Employed in Operating Program	6
III. PROJECTION RESULTS	11
IV. REGIONAL PROFILES.	14
A. Region A.	14
B. Region B.	33
C. Region C.	34
D. Region D.	35
E. Region E.	37
F. Region F.	38
G. Region G.	40
H. Region H.	42
J. Region J.	43
K. Region K.	45
L. Region L.	46
M. Region M.	47
N. Region N.	49
O. Region O.	50
P. Region P.	51
Q. Region Q.	53
R. Region R.	54
V. ADDITIONAL PLANNING INFORMATION.	56
Appendix A: Example of Detailed Projection Information Available for Subsequent Systemwide and Local Planning	A-1
Appendix B: Suggested Match Between Occupational Groups and North Carolina Department of Community Colleges Curriculum and Program Codes	B-1

LIST OF EXHIBITS

<u>Exhibit</u>		<u>Page</u>
1	Summary Projections of Enrollment Potential by Institution (Average Annual Full-Time Equivalent Basis)	15
2	Summary Projections of Enrollment Potential by Institution (Average Annual Unduplicated Headcount Basis)	18
3	Comparison of 1980-1981 Projections of Average Annual Enrollment Potential With 1973-1974 Enrollment (Average Annual Full-Time Equivalent Basis).	21
4	Projections of Annual Average Enrollment Potential by Major Program Area, 1975-1980 (Average Annual Full-Time Equivalent Basis)	24
5	Projections of Annual Average Enrollment Potential by Major Program Area, 1975-1980 (Average Annual Unduplicated Headcount Basis).	28

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	North Carolina Multi-County Planning Regions.	12

North Carolina Community College System
Five-Year Operating Program

I. INTRODUCTION

The five-year operating program for the North Carolina Community College System presented here represents a disaggregation of systemwide enrollment information presented in the 1975-1985 strategic plan to the 1975-1980 subperiod and to the institutional level. The 1975-1985 strategic plan contains projections of occupational requirements and related training requirements for the 1970-1980 period for the State and its 17 official multi-county planning regions, and estimates of unmet training needs in 1970 for the State; this information is translated into Statewide projections of graduates and enrollments over the 1975-1985 period and forms the basis for the material presented here as well as for a 1977-1979 biennial budget for the North Carolina Department of Community Colleges that will be presented later.

This operating program presents projections of enrollments for major program areas in the Community College System by multi-county planning region for the 1975-1980 period. These projections are consistent with the Statewide projections of graduates and enrollments by major program area presented in the strategic plan. Multi-county planning region enrollments by program area are disaggregated to the institutional level to form projections of individual institution enrollments by program area that are consistent with past experience and with the projections of economic activity in the region and the estimates of unmet training needs in the region as of 1970. The institutional projections were adjusted in each case to incorporate the effects of planned expansions, since such expansions are likely to modify the relationships derived from a simple extrapolation of past experience. These modified projections are then compared with separate projections prepared for the 1975-1980 period by each institution during 1974.

The major program areas identified in this projection effort are as follows:

Curriculum

- College transfer
- General education
- Technical
- Vocational

Extension

- Occupational
- Adult high school education (including learning laboratory)
- Adult basic education
- General adult

The procedures used to translate the estimates of unmet training needs in 1970 and the projections of economic activity over the 1970-1985 period into these individual program areas are explained in the strategic plan. The projections of major program area enrollments by institution and multi-county planning region presented here are consistent with the Statewide enrollment projections in the major program areas presented in the strategic plan. These projections are then compared with projections made by the individual institutions for this same period. The latter projections are a part of a pioneering effort by the Department of Community Colleges and the institutions to develop long-range objectives and the training, staffing, facility, and funding implications of these objectives at the local level. The long-range institutional plans submitted during this initial effort vary in content and in methodologies and assumptions for projection, making it difficult to compare each of them with the projections presented here and with each other. The Department of Community Colleges is currently evaluating these plans, and one outcome of this evaluation will be to strengthen and make more definitive the guidelines for preparation of these plans so as to insure a higher level of comparability among them.

Additional information presented in this document includes a copy of the projections of employment in each of 36 industry groups cross-classified by 128 occupational groups for 1985; projections of requirements (new hires)

within each occupational group, by source, over the 1970-1985 period; and projections of training requirements (educational attainment profiles) within each occupational group for the 1970-1985 period. This information is presented for the State only. Similar information is available for each multi-county planning region, and will be transmitted under separate cover. These detailed projections at the regional level, already used as one piece of information to project enrollments by region and by major program area, may be used further to specify the occupational distribution of the projected training requirements for occupational programs at the regional level. To further facilitate the use of this information in local planning, current Community College System curricula are assigned to the occupational group(s) with which they are most closely related.

A note of caution is in order. The enrollment projections presented in this report are primarily based on manpower projections. The Community College System, on the other hand, operates under a legislative mandate to provide comprehensive education as well as training related to labor force requirements. Thus these enrollment projections can be interpreted as minimum levels of effort required over the next five years. These minimum levels of effort will, on the basis of the research and procedures used to formulate these projections, enable North Carolina and its regions to eliminate educational attainment gaps in comparison with the U.S. in 1970 and to keep pace with the growing educational attainment requirements of the U.S. labor force on an occupation by occupation basis. Additional requirements may arise if either or both of the two following events occur:

- (1) the educational attainment level of the non-working U.S. population rises more rapidly than that of the non-working North Carolina population over the 1970-1985 period, since the projections presented here implicitly assume no new requirements are generated from this source; and,
- (2) North Carolina policymakers elect to lead, rather than simply keep pace with (as is assumed here), the U.S. in providing education and training opportunities for its citizens within those program areas relevant to the Community College System.

Finally, these projections do not incorporate estimates of migration by educational attainment level; nor do they incorporate estimates of educational opportunities provided by other institutions of education and training, either public or private, except for the college transfer program area. No migration adjustment was made because of the difficulty in obtaining meaningful estimates of migration by educational attainment level for states and substate regions with existing data sources, particularly when such estimates are to be used for projection purposes over periods of changing employment and educational opportunities, and changing employment structures. Educational offerings in program areas relevant to the Community College System but supplied by other education and training systems were not considered except for the college transfer program area, primarily because of the predominance of the Community College System in these program areas at the present time. This does not preclude, however, the use of these projections to help determine the extent and nature of the education and training opportunities present in a given region that may be served by all appropriate institutions in the region; this remark applies especially to extension offerings.

II. PROJECTION METHODOLOGY SUMMARY

A. Introduction

The enrollment projections for the 1975-1980 period presented in this report are based on projections for the 1970-1985 period and the 1975-1985 subperiod presented in a previous document in this series, North Carolina Community College System Strategic Plan, 1975-1985 dated January 1975.^{1/} This strategic plan presented projections of Statewide and regional growth in employment by industry, in major occupational requirements, and in labor force related training requirements by educational attainment level. The projected training requirements were added to those estimated to be present in 1970 among the general population, and these requirements were then translated into projections of Community College System graduates and enrollments by major program area at the State level over the 1975-1985 period.

^{1/} Research Triangle Institute, North Carolina Community College System Strategic Plan, 1975-1985, North Carolina Department of Community Colleges: Raleigh, N.C., RM-26U-976-2, January 1975.

B. Summary of Projection Methodology Employed in Strategic Plan

The projection methodology employed in the Strategic Plan begins with projections of population by age, race, and sex by county prepared annually by the North Carolina Office of State Planning. These projections were then translated into projections of labor force size by extrapolating trends in age-, race-, and sex-specific labor force participation rates in North Carolina relative to national trends, and applying the projected rates to the projections of population. Employment projections were derived from the projections of labor force size by assuming a trend unemployment rate of 3.5 percent.

The projections of population and employment produced by this procedure were then adjusted on the basis of historical relationships between net migration and employment growth in North Carolina; this adjustment resulted in increasing the projection of net immigration at the State level above that obtained from the population projection program maintained by the North Carolina Office of State Planning, which simply extrapolates 1960-1970 migration trends by county. These revised population and employment projections were then allocated to the regional level on the basis of two considerations:

- (1) projected population shares implied by the population projection program previously cited; and,
- (2) projections of trends in employment/population ratios by region.

The industrial composition of projected employment at the State and regional levels was obtained from the 1972 OBERS Projections of Regional Economic Activity in the United States.^{a/} These OBERS projections for economic areas based in North Carolina had to be disaggregated to the multi-county planning region level on the basis of historical trends in employment shares by industry for each multi-county planning region relative to the OBERS economic area(s) with which it is associated.

^{a/} U.S. Bureau of Economic Analysis and U.S. Economic Research Service, 1972 OBERS Projections of Regional Economic Activity in the United States, Volumes 1-5. U.S. Water Resources Council, September 1972.

Occupational projections within each industry were prepared by applying projections of staffing pattern changes by industry available from the U.S. Bureau of Labor Statistics to 1970 estimates of staffing patterns by industry available from the U.S. Bureau of the Census. A special tabulation of 1970 Census of Population estimates of employment by industry and occupation for each North Carolina county was used in this stage of the analysis; this tabulation is currently maintained by the Occupational Research Unit of the North Carolina Department of Public Instruction. The projections of occupational employment growth by industry were then combined with estimates of occupational vacancies expected to develop as 1970 employed workers die, retire, or separate from the labor force for child-bearing reasons over the projection period. An adjustment was made to these vacancies to account for the fact that a portion of the females expected to separate from the labor force for child-bearing reasons may return during the projection period. Total occupational requirements were projected as the sum of these expansion and replacement components.

Projections of educational attainment requirements at the State and regional levels were made by summing educational attainment projections by occupation. These occupational-specific projections of educational attainment were formed by multiplying the projections of occupational requirements by a projected educational attainment distribution for each occupation at the U.S. level. The resulting educational attainment projections represent what will be required for North Carolina workers to catch up with their U.S. counterparts in terms of educational attainment on an occupation by occupation basis. These projections are then added to estimates of training requirements in the general population as of 1970 to form total training requirements over the 1970-1985 period at the State level, then translated into graduates and enrollments in related Community College System major program areas on an annual average basis over the 1975-1985 period.

C. Summary of Projection Methodology Employed in Operating Program

The projection methodology employed in the operating program is an attempt to disaggregate the figures presented in the Strategic Plan to individual institutional enrollments for the 1975-1980 period. Projections

of Statewide enrollments by major program area for 1975-1985 and of training requirements over the 1970-1985 period form the starting point for development of the operating program for 1975-1980. Information on educational attainment levels of the general population in each multi-county planning region as of 1970, available from a special tabulation of 1970 Census of Population records currently maintained by the North Carolina Manpower Council, was used to form educational attainment gaps relative to the Nation for each region. This same procedure was employed at the State level and was reported in the Strategic Plan.

These educational attainment requirements present in 1970 were added to the training requirements projected over the 1970-1985 period to form total training requirements for each region consistent with total training requirements at the State level. These requirements were then matched to Community College System major program areas as before. It was assumed that all requirements from zero years of schooling through high school graduates with post-secondary technical and vocational training would be served by the Community College System for persons aged 18 years and over. However requirements at the College 1-3 educational attainment level were divided between the Community College System and other institutions of higher education, both public and private, on the basis of an extrapolation of historical enrollment trends. Requirements at the post-secondary technical and vocational level were developed on an occupation by occupation basis with the aid of representatives from the Departments of Community Colleges and Public Instruction and then added; they were then separated into technical and vocational components on the basis of an extrapolation of trends in technical and vocational training in the Community College System.

General education, occupational extension, and general adult extension requirements were developed at the regional level using the same procedure that was applied at the State level and that was reported in the Strategic Plan. The resulting training requirements classified by relevant Community College System major program area in each region were then adjusted for consistency with the Statewide requirements in each major program area over the 1970-1985 period.

These regional training requirements by major program area were converted into graduates and enrollments in each area using the same procedure that was applied at the State level and that was reported in the Strategic Plan. These graduates and average annual unduplicated headcount enrollments were then made consistent with the Statewide projections of graduates and enrollments on an annual average basis over the 1975-1985 period. These projections were allocated to each institution on the basis of a modified extrapolation of trends in enrollments by institution and major program area within each multi-county planning region.

The next step involved translating the 1975-1985 enrollments to 1975-1980 enrollments. This began with the computation of a 1984-1985 average annual unduplicated headcount enrollment level from the projections of annual average unduplicated headcount enrollments over the 1975-1985 period for each institution; this computation was made relative to the 1973-1974 period, the last full year for which data are available. The 1984-1985 enrollment level was then used with the 1973-1974 level and the 1975-1985 annual average level to compute total enrollments by institution over the 1975-1980 period. The mathematical procedure used for this purpose assumes that each institution will continue to grow, but at a decreasing rate with the passage of time, consistent with the projections of total enrollments by institution over the 1975-1985 period. The 1975-1980 projection of total enrollments by institution were then allocated to major program areas within each institution on the basis of ratios implied from the 1975-1985 projections of enrollments by major program area and institution.

These projections were then converted to a full-time equivalent basis by using ratios between full-time equivalent and unduplicated headcount enrollments by major program area and institution obtained from the 1969-1970 through 1973-1974 period. Once these figures were obtained they were placed on an annual average basis by dividing by five years; the result is a projection of annual average enrollments (both full-time equivalent and unduplicated headcount) over the 1975-1980 period. Enrollments for any given year in the projection period are to be interpreted as a projection

of average annual enrollments, whether full-time equivalent or unduplicated headcount, for that year.

The projections of annual average full-time equivalent enrollments over the 1975-1980 period were disaggregated to provide projections for the 1980-1981 period by a procedure that utilized information for the first two quarters of the 1974-1975 school year for each institution. This information was used to appropriately adjust the 1973-1974 figures, which were depressed somewhat from the previous year primarily due to the gasoline shortages during that school year, to form an estimate for the year 1974 alone. This estimate was used in conjunction with the annual average full-time equivalent enrollment projection over the 1975-1980 period by a procedure similar to the one used earlier to project 1984-1985 enrollments from annual average and 1973-1974 values. This mathematical procedure assigned a major portion of the projected enrollment growth over the 1975-1980 period to the first one-half of this period.

The 1980-1981 average annual full-time equivalent enrollment projections were then compared with similar projections for the same year prepared by each institution. No information was available on the projection procedures used by these institutions, or whether the procedures used were similar for any or all institutions. The projections described earlier were modified after review of these projections prepared by the individual institutions, particularly where the latter indicated significant increases from historical experience anticipated upon moving into new facilities. Those modifications were made by averaging the projected institutional shares of regional enrollments from the RTI and the individual institution efforts and applying these averaged shares to the regional enrollments projected by RTI with two exceptions. Before these averaged shares were applied to Regions H through O, a similar procedure was applied to Regions H through M as a group and to Regions N and O as a group. The net result of this modification was to redistribute some enrollment growth away from Regions J and K and into Regions H, L, and M and away from Region N into Region O. After this modification was made, the averaged shares of institutional enrollments within

these regions were applied to yield revised projections of 1980-1981 institutional enrollments. Projections of annual average enrollments over the 1975-1980 period (both unduplicated headcount and full-time equivalent) were then recomputed to be consistent with the revised 1980-1981 enrollment projections, and then were allocated across program areas as before. This recomputation preserved the projections of program area enrollments by region for those regions whose totals were left unadjusted, and of program area enrollment totals for Regions H - M and N - O.

The resulting projections of institutional enrollment totals place approximately equal weight on extrapolations of historical experience and on anticipated facility expansion in disaggregating the regional enrollment totals. Program area enrollments within each institution basically reflect historical experience with one major exception: regional college transfer program enrollment totals were allocated on the basis of projections of the home county share of regional population aged 18-24 years for the projection period. This procedure was applied for institutions that currently operate such programs and for four institutions--Vance-Granville, Martin, Pitt and Halifax--that have received State Board of Education and Advisory Budget Commission approval to convert to community college status, and are awaiting funding from the Legislature for college transfer programs at the time of this writing. General education curriculum program enrollments were developed for each institution, although typically the entries registered for institutions currently without such programs are minor.

In summary, these projections of enrollment by region, institution, and major program area were prepared with the use of a procedure that is basically manpower oriented, and may not fully reflect educational needs in the non-working adult population. On the other hand, the educational attainment levels used in this study are levels projected for the Nation on an occupation by occupation basis, and in many cases represent significant increases in educational attainment from current levels in North Carolina. Finally, these projections are not constrained by facility limitations; instead they represent a projected potential market for Community College System activity that may not be realized in practice because of facility and/or cost constraints. Users of these projections are encouraged to keep these basic assumptions in mind. All assumptions and intermediate computations are currently on file at RTI and are available upon request; they are not reproduced here in the interest of brevity.

III. PROJECTIONS RESULTS

The projections of Community College System enrollment potential based primarily on manpower requirements are presented in Exhibits 1 through 5. Exhibit 1 presents the summary enrollment projections by institution on an average annual full-time equivalent basis; companion average annual unduplicated headcount enrollment figures are presented in Exhibit 2. In both Exhibits, the 1973-1974 institutional enrollment figures are listed for comparison purposes. The 1973-1974 unduplicated headcount enrollments fell below comparison figures for 1972-1973 and for the first two quarters of 1974-1975 (the latest data available at this writing) at many institutions, especially those located in more rural areas. A portion of this drop may be explained by the gasoline supply problems during the 1973-1974 school year, which reduced unduplicated headcount enrollments in many program areas, and particularly in extension programs.

These results indicate large enrollment growth potential in many regions and institutions. A map illustrating the 17 official multi-county planning regions is presented in Figure 1; regional profiles are included in Section IV of this report. Region G is projected as having the largest absolute growth potential, slightly ahead of Region F. The enrollment growth projected for Region G represents more rapid growth above 1973-1974 enrollments than in any other region. Region R is expected to have the smallest growth potential. Individual institution projections consistent with the regional projections are presented in these Exhibits; the institutions are listed in the regions in which they are domiciled, although an institution near the boundary of a region may draw students from adjacent counties in the next region(s). Thus the practice employed here of allocating regional projections only to institutions located in that region is somewhat arbitrary; this point should be kept in mind when interpreting the institutional projections. Major institutional growth is projected for all institutions in Regions F, G, and J, and for selected institutions in other regions, particularly when considering growth on a relative as well as on an absolute basis.

Figure 1

NORTH CAROLINA MULTI-COUNTY PLANNING REGIONS



Exhibit 3 compares the projections prepared by RTI to the projections prepared by the individual institutions. The largest absolute growth is indicated by RTI to take place in Region G and the smallest to occur in Region R. The individual institutions project the largest absolute growth to occur in Region F and the smallest in Region R. The absolute growth reported by RTI for all regions and most institutions is larger than the growth reported by the individual institutions. The enrollments in Region G projected by RTI are almost twice the projections prepared by the individual institutions for Surry Community College and Central Carolina Technical Institute. Both are negative, whereas the RTI projections indicate significant enrollment growth potential for both, particularly for Central Carolina Technical Institute.

The largest absolute growth in full-time equivalent enrollments is projected for Central Piedmont Community College by RTI and the individual institutions. The largest relative growth is projected by both RTI and the individual institutions to occur at Nash Technical Institute, which has plans to expand in the near future. The RTI projection of absolute growth falls below the individual institution projections for Sandhills Community College, Nash Technical Institute, and Pamlico Technical Institute. The latter two institutions also plan future expansions. The RTI projections have attempted to utilize future expansion plans to modify the relative enrollment standing of individual institutions in a region as projected from a simple extrapolation of past experience.

Exhibits 4 and 5 present a disaggregation of the RTI regional and institutional projections into major program areas consistent with similar projections prepared for the State and presented in the strategic plan for 1975-1985. The projections in Exhibits 4 and 5 are presented on an annual average full-time equivalent and an annual average unduplicated headcount basis over the 1975-1980 period, respectively. No comparison is listed with previous major program area enrollments by area or institution, although in general, technical and vocational curriculum enrollments and adult high school and basic education extension enrollments are projected to rise most rapidly.

As stated previously, these projections are essentially manpower based, and do not fully represent the comprehensive educational needs of the general population. The requirements that are presented here do, however, indicate levels of effort required of the Community College System to eliminate educational attainment gaps between North Carolina and the Nation existing in the general population in 1970 and expected to be present in the work force over the 1970-1985 period. These projections are not constrained by facilities limitations, and consequently result in major expansions in levels of effort existing or planned at several institutions.

The college transfer enrollments presented here are allocated to individual institutions on the bases of projections of population aged 18-24 years in the home county of the institution; this procedure was suggested by representatives of the Department of Community Colleges, and North Carolina Office of State Planning age-specific population projections by county were used for this purpose. These allocations were made only for institutions that currently operate college transfer programs and for four institutions--Vance-Granville, Martin, Pitt, and Halifax--that have received State Board of Education and Advisory Budget Commission approval to convert to community college status, and are awaiting funding from the Legislature for College Transfer programs at the time of this writing. It should be noted that the State Board of Education requires a projected minimum of 132 full-time equivalent (FTE) enrollments during the first year of college transfer program operation and a projected minimum of 220 FTE enrollments during the second and subsequent years before approval for the conversion in status is granted. The college transfer program enrollments presented here are based primarily on manpower requirements, and for that reason may indicate lower enrollment totals than an institution currently serves; since many enrollees in this program plan to continue their education beyond the associate degree, the figures reported here should be considered as minimum enrollment levels only.

IV. REGIONAL PROFILES

A. Region A

Region A is located in mountainous terrain in the southwestern corner of the State and contains the following seven counties: Cherokee, Clay,

EXHIBIT 1. Summary Projections of Enrollment Potential by Institution
(Average Annual Full-Time Equivalent Basis)

Region Institution (County)	1973-1974 Actual	1975-1980 Average Annual Projections	1980-1981 Projections
Region A	2,466	3,920	4,780
Haywood T.I.	952	1,620	1,970
Southwestern T.I. (Jackson)	784	1,180	1,440
Tri-County T.I. (Cherokee)	730	1,120	1,370
Region B	2,657	4,300	5,230
Asheville-Buncombe T.I.	1,777	2,540	3,090
Blue Ridge T.I. (Henderson)	880	1,760	2,140
Region C	2,190	4,360	5,520
Cleveland T.I.	1,121	2,360	2,990
Isothermal C.C. (Rutherford)	743	1,300	1,640
McDowell T.I.	326	700	890
Region D	1,902	3,640	4,590
Mayland T.I. (Mitchell)	387	980	1,230
Wilkes C.C.	1,515	2,660	3,360
Region E	4,559	8,600	10,780
Caldwell C.C. & T.I.	1,432	2,630	3,300
Catawba Valley T.I.	1,695	3,600	4,520
Western Piedmont C.C. (Burke)	1,432	2,370	2,960
Region F	12,453	23,600	30,230
Central Piedmont C.C. (Mecklen.)	7,458	14,440	18,500
Gaston College	2,074	3,420	4,380
Mitchell C.C. (Iredell)	814	1,180	1,510
Rowan T.I.	1,378	2,880	3,690
Stanly T.I.	729	1,680	2,150
Region G	12,111	27,960	38,590
Davidson C.C.	1,690	3,300	4,550
Forsyth T.I.	2,260	5,480	7,560
Guilford T.I.	3,226	9,700	13,390
Randolph T.I.	1,114	2,600	3,590
Rockingham C.C.	1,261	2,260	3,130
Surry C.C.	1,153	1,770	2,430
T.I. of Alamance	1,407	2,850	3,940

Exhibit 1 (Continued)

Region Institution (County)	1973-1974 Actual	1975-1980 Average Annual Projections	1980-1981 Projections
Region H	3,787	5,130	5,440
Anson T.I.	521	750	800
Montgomery T.I.	405	660	700
Richmond T.I.	1,149	1,700	1,800
Sandhills C.C. (Moore)	1,712	2,020	2,140
Region J	6,819	12,040	14,960
Central Carolina T.I. (Lee)	2,324	3,620	4,480
Durham T.I.	1,471	2,850	3,550
Johnston T.I.	1,502	2,710	3,370
Wake T.I.	1,522	2,860	3,560
Region K	1,819	3,360	4,310
Piedmont T.I. (Person)	1,005	1,810	2,320
Vance-Granville T.I.	814	1,550	1,990
Region L	3,318	7,320	9,660
Edgecombe T.I.	1,028	1,560	2,190
Halifax County T.I.	791	1,460	1,920
Nash T.I.	614	2,500	3,310
Wilson County T.I.	885	1,700	2,240
Region M	4,389	8,830	11,440
Fayetteville T.I. (Cumberland)	3,460	7,060	9,150
Sampson T.I.	929	1,770	2,290
Region N	1,623	3,150	3,940
Bladen T.I.	439	900	1,130
Robeson T.I.	1,134	2,250	2,810
Region O	4,011	7,310	9,220
Cape Fear T.I. (New Hanover)	2,724	5,010	6,320
Southeastern C.C. (Columbus)	1,287	2,300	2,900
Region P	9,376	14,140	16,770
Carteret T.I.	728	1,120	1,320
Coastal Carolina C.C. (Onslow)	2,138	3,720	4,410
Craven C.C.	1,153	2,120	2,520
James Sprunt Institute (Duplin)	899	1,340	1,590
Lenoir C.C.	2,063	2,800	3,320
Pamlico T.I.	238	450	540
Wayne C.C.	2,157	2,590	3,070

Exhibit 1 (Continued)

Region Institution (County)	1973-1974 Actual	1975-1980 Average Annual Projections	1980-1981 Projections
Region Q	4,327	7,320	9,030
Beaufort County T.I.	1,270	1,740	2,150
Martin T.I.	614	1,140	1,410
Pitt T.I.	1,601	2,620	3,230
Roanoke-Chowan T.I. (Hertford)	842	1,820	2,240
Region R	1,056	1,320	1,440
College of Albemarle (Pasquotank)	1,056	1,320	1,440
State Total	78,833	146,300	185,930

SOURCE: Research Triangle Institute.

EXHIBIT 2. Summary Projections of Enrollment Potential by Institution
(Average Annual Unduplicated Headcount Basis)

Region Institution (County)	1973-1974 Actual	1975-1980 Average Annual Projections	1980-1981 Projections
Region A	10,568	18,290	22,260
Haywood T.I.	3,717	6,090	7,300
Southwestern T.I. (Jackson)	4,154	7,300	9,000
Tri-County T.I. (Cherokee)	2,697	4,900	5,960
Region B	11,117	28,800	36,010
Asheville-Buncombe T.I.	6,998	14,620	18,180
Blue Ridge T.I. (Henderson)	4,119	14,180	17,830
Region C	11,060	26,900	35,250
Cleveland T.I.	5,587	14,460	16,690
Isothermal C.C. (Rutherford)	3,616	9,280	11,710
McDowell T.I.	1,857	3,160	6,850
Region D	9,147	20,700	26,470
Mayland T.I. (Mitchell)	2,342	6,780	8,790
Wilkes C.C.	6,804	13,920	17,680
Region E	33,202	51,470	96,550
Caldwell C.C. & T. I.	11,859	18,350	55,000
Catawba Valley T. I.	12,260	19,680	25,110
Western Piedmont C.C. (Burke)	9,083	13,440	16,440
Region F	61,577	141,560	181,060
Central Piedmont C.C. (Mecklen.)	33,191	57,250	74,000
Gaston College	10,753	32,240	39,820
Mitchell C.C. (Iredell)	3,930	8,260	10,790
Rowan T.I.	9,241	28,960	36,900
Stanly T.I.	4,462	14,850	19,550
Region G	64,042	171,320	234,580
Davidson C.C.	10,503	27,580	37,920
Forsyth T.I.	11,614	27,600	37,800
Guilford T.I.	16,809	54,400	74,390
Randolph T.I.	5,653	15,650	21,120
Rockingham C.C.	5,951	16,020	22,360
Surry C.C.	7,047	15,350	20,250
T. I. Of Alamance	6,465	14,720	20,740

Exhibit 2 (Continued)

Region Institution (County)	1973-1974 Actual	1975-1980 Average Annual Projections	1980-1981 Projections
Region H	16,569	24,740	26,630
Anson T.I.	2,711	4,330	4,710
Montgomery T.I.	1,484	2,830	3,040
Richmond T.I.	6,033	7,590	8,180
Sandhills C.C. (Moore)	6,141	9,990	10,700
Region J	29,697	66,990	83,360
Central Carolina T.I. (Lee)	11,225	23,810	29,930
Durham T.I.	6,389	15,200	18,680
Johnston T.I.	6,917	16,940	21,060
Wake T.I.	5,166	11,040	13,690
Region K	9,812	19,410	24,650
Piedmont T.I. (Person)	4,487	9,430	12,210
Vance-Granville T.I.	5,325	9,980	12,440
Region L	17,939	42,610	56,300
Edgecombe T.I.	4,154	10,610	13,690
Halifax County T.I.	4,539	7,000	9,140
Nash T.I.	3,432	14,410	19,470
Wilson County T.I.	5,814	10,590	14,000
Region M	19,784	50,510	64,830
Fayetteville T.I. (Cumberland)	16,167	35,780	45,750
Sampson T.I.	3,617	14,730	19,080
Region N	8,245	15,760	19,700
Bladen T.I.	2,548	4,460	5,650
Robeson T.I.	5,697	11,300	14,050
Region O	17,311	35,800	45,360
Cape Fear T.I. (New Hanover)	11,754	23,430	30,100
Southeastern C.C. (Columbus)	5,557	12,370	15,260
Region P	55,058	89,670	105,960
Carteret T.I.	3,547	5,360	6,290
Coastal Carolina C.C. (Onslow)	22,520	34,170	40,090
Craven T.I.	6,689	12,680	14,820
James Sprunt Institute (Duplin)	3,413	5,990	7,230
Lenoir C.C.	8,659	14,490	17,470
Pamlico T.I.	1,022	2,470	3,000
Wayne C.C.	9,208	14,510	17,060

Exhibit 2 (Continued)

Region Institution (County)	1973-1974 Actual	1975-1980 Average Annual Projections	1980-1981 Projections
Region Q	19,808	34,540	42,450
Beaufort County T.I.	4,976	7,720	9,350
Martin T.I.	3,406	5,800	7,050
Pitt T.I.	7,144	12,290	15,380
Roanoke-Chowan T.I. (Hertford)	4,282	8,130	10,670
Region R	5,484	6,220	6,860
College of Albemarle (Pasquotank)	5,484	6,220	6,860
State Total	400,220	845,290	1,108,280

SOURCE: Research Triangle Institute.

**EXHIBIT 3. Comparison of 1980-1981 Projections of Average Annual
Enrollment Potential With 1973-1974 Enrollment
(Average Annual Full-Time Equivalent Basis)**

Region Institution (County)	1973-1974 Actual	1980-1981 Projections		
		RTI (1)	Institutional (2)	Difference (1 - 2)
Region A	2,466	4,780	3,922	858
Haywood T.I.	952	1,970	1,638	332
Southwestern T.I. (Jackson)	784	1,440	1,199	241
Tri-County T.I. (Cherokee)	730	1,370	1,085	285
Region B	2,657	5,230	4,045	1,185
Asheville-Buncombe T.I.	1,777	3,090	2,095	995
Blue Ridge T.I. (Henderson)	880	2,140	1,950	190
Region C	2,190	5,520	3,803	1,717
Cleveland T.I.	1,121	2,990	2,149	841
Isothermal C.C. (Rutherford)	743	1,640	1,140	500
McDowell T.I.	326	890	514	376
Region D	1,902	4,590	2,417	2,173
Mayland T.I. (Mitchell)	387	1,230	740	490
Wilkes C.C.	1,515	3,360	1,677	1,683
Region E	4,559	10,780	5,944	4,836
Caldwell C.C. & T.I.	1,432	3,300	1,835	1,465
Catawba Valley T.I.	1,695	4,520	2,405	2,115
Western Piedmont C.C. (Burke)	1,432	2,960	1,704	1,256
Region F	12,453	30,230	22,882	7,348
Central Piedmont C.C. (Mecklen.)	7,458	18,500	14,600	3,900
Gaston College	2,074	4,380	2,990	1,390
Mitchell C.C. (Iredell)	814	1,510	1,281	229
Rowan T.I.	1,378	3,690	2,225	1,465
Stanly T.I.	729	2,150	1,786	364
Region G	12,111	38,590	19,493	19,097
Davidson C.C.	1,690	4,550	2,245	2,305
Forsyth T.I.	2,260	7,560	3,392	4,168
Guilford T.I.	3,226	13,390	7,709	5,681
Randolph T.I.	1,114	3,590	1,919	1,671
Rockingham C.C.	1,261	3,130	1,583	1,547
Surry C.C.	1,153	2,430	1,050	1,380
T.I. of Alamance	1,407	3,940	1,595	2,345

Exhibit 3 (Continued)

Region Institution (County)	1973-1974 Actual	1980-1981 Projections		
		RTI (1)	Institutional (2)	Difference (1 - 2)
Region H	3,787	5,440	4,898	542
Anson T.I.	521	800	690	110
Montgomery T.I.	405	700	654	46
Richmond T.I.	1,149	1,800	1,375	425
Sandhills C.C. (Moore)	1,712	2,140	2,179	- 39
Region J	6,819	14,960	8,434	6,526
Central Carolina T.I. (Lee)	2,324	4,480	2,275	2,205
Durham T.I.	1,471	3,550	2,180	1,370
Johnston T.I.	1,502	3,370	1,902	1,468
Wake T.I.	1,522	3,560	2,077	1,483
Region K	1,819	4,310	2,843	1,467
Piedmont T.I. (Person)	1,005	2,320	1,658	662
Vance-Granville T.I.	814	1,990	1,185	805
Region L	3,318	9,660	7,459	2,201
Edgecombe T.I.	1,028	2,190	1,380	810
Halifax County T.I.	791	1,920	985	935
Nash T.I.	614	3,310	3,613	- 303
Wilson County T.I.	885	2,240	1,481	759
Region M	4,389	11,440	9,655	1,785
Fayetteville T.I. (Cumberland)	3,460	9,150	7,515	1,635
Sampson T.I.	929	2,290	2,140	150
Region N	1,623	3,940	2,500	1,440
Bladen T.I.	489	1,130	805	325
Robeson T.I.	1,134	2,810	1,695	1,115
Region O	4,011	9,220	6,741	2,479
Cape Fear T.I. (New Hanover)	2,724	6,320	4,607	1,713
Southeastern C.C. (Columbus)	1,287	2,900	2,134	766
Region P	9,376	16,770	14,110	2,660
Carteret T.I.	728	1,320	1,035	285
Coastal Carolina C.C. (Onslow)	2,138	4,410	3,459	951
Craven C.C.	1,153	2,520	2,212	308
James Sprunt Institute (Duplin)	899	1,590	1,405	185
Lenoir C.C.	2,063	3,320	2,930	390
Pamlico T.I.	238	540	585	- 45
Wayne C.C.	2,157	3,070	2,484	586

Exhibit 3 (Continued)

Region Institution (County)	1973-1974 Actual	1980-1981 Projections		
		RTI (1)	Institutional (2)	Difference (1 - 2)
Region Q	4,327	9,030	6,626	2,404
Beaufort County T.I.	1,270	2,150	1,550	600
Martin T.I.	614	1,410	1,115	295
Pitt T.I.	1,601	3,230	2,336	894
Roanoke-Chowan T.I. (Hertford)	842	2,240	1,625	615
Region R	1,056	1,440	1,359	81
College of Albemarle (Pasquotank)	1,056	1,440	1,359	81
State Total	78,863	185,930	127,131	58,799

SOURCE: North Carolina Department of Community Colleges.
Research Triangle Institute.

EXHIBIT 4. Projections of Annual Average Enrollment Potential by Major Program Area, 1975-1980
(Average Annual Full-time Equivalent Basis)

Region Institution (county)	Curriculum				Extension		
	College Transfer ^{1/}	General Education	Technical	Vocational	Occupational ^{2/}	Adult Education ^{2/}	General Adult ^{3/}
Region A	800	80	500	740	540	940	320
Waywood T.I.		10	300	280	230	320	120
Southwestern T.I. (Jackson)		50	120	180	170	260	100
Tri-County T.I. (Cherokee)		20	80	280	140	360	100
Region B	80	40	1,080	980	880	760	480
Asheville-Euncombe T.I.		10	820	660	420	450	120
Blue Ridge T.I. (Henderson)		30	260	320	460	310	360
Region C	840	140	780	980	380	800	440
Cleveland T.I.		50	580	460	240	410	200
Isothermal C.C. (Rutherford)	260	20	100	360	90	300	170
McDowell T.I.		70	100	160	50	90	70
Region D	780	60	680	460	220	1,020	420
Mayland T.I. (Mitchell)		10	100	340	90	270	50
Wilkes C.C.	660	50	580	120	130	750	370
Region E	1,060	80	2,240	1,386	1,140	1,580	1,020
Caldwell C.C. and T.I.	280	10	360	440	390	760	390
Catawba Valley T.I.		20	1,140	750	370	490	350
Western Piedmont C.C. (Burke)	300	50	740	190	380	430	280
Region F	1,360	600	5,700	4,040	4,340	5,060	2,560
Central Piedmont C.C. (Mecklenburg)	720	450	4,510	2,460	2,360	3,100	840
Gaston College	260	100	300	740	530	990	500
Mitchell C.C. (Iredell)	140	20	200	180	340	200	100
Rowan T.I.		20	510	460	540	650	580
Stanly T.I.		10	180	200	570	120	540
Total							
							3,920
							1,620
							1,180
							1,120
							4,300
							2,540
							1,760
							4,360
							2,360
							1,300
							700
							3,640
							980
							2,660
							8,600
							2,630
							3,600
							2,370
							23,600
							14,440
							3,420
							1,180
							2,880
							1,680

Exhibit 4 (Continued)

Region Institution (county)	College Transfer 1/	Curriculum				Extension		Total 3/
		General Education	Technical	Vocational	Occupational	Adult Education 2/	General Adult	
Region G	1,900	750	6,300	5,080	5,140	6,180	2,580	27,960
Davidson C.C.	200	330	560	460	490	670	590	3,300
Persyth T.I.		80	1,210	1,370	860	1,350	150	5,480
Guilford T.I.		180	2,190	1,450	2,150	2,130	960	9,700
Randolph T.I.		140	510	430	680	450	230	2,600
Rockingham C.C.	140	20	500	540	240	660	160	2,260
Surry C.C.	100	10	400	380	250	390	240	1,770
T.I. of Alamance		20	930	450	470	530	250	2,850
Region H	860	270	880	820	920	900	480	5,130
Anson T.I.		20	60	130	220	90	90	750
Montgomery T.I.		30	40	200	70	100	100	660
Richmond T.I.		120	230	270	310	350	120	1,700
Sandhills C.C. (Moore)	300	100	550	220	320	360	170	2,020
Region J	40	270	2,960	2,920	2,680	1,750	1,420	12,040
Central Carolina T.I. (Lee)		30	680	400	1,250	540	710	3,620
Durham T.I.		140	980	740	400	410	170	2,850
Johnston T.I.		60	260	770	820	390	440	2,710
Wake T.I.		40	1,040	1,050	210	410	100	2,860
Region K	900	60	460	640	460	500	340	3,360
Piedmont T.I. (Person)		20	400	380	280	290	180	1,810
Vance-Granville T.I. 4/	640	40	60	260	180	210	160	1,550
Region L	600	130	1,150	1,730	1,030	1,730	950	7,320
Edgecombe T.I.		20	240	380	340	290	250	1,660
Halifax County T.I. 4/	140	50	190	290	140	450	200	1,460
Nash T.I.		40	420	560	340	630	350	2,500
Wilson County T.I.		20	300	500	210	360	150	1,700

Exhibit 4 (Continued)

Region Institution (county)	College Transfer ¹ / ₂	Curriculum			Extension			Total ³ / ₄
		General Education	Technical	Vocational	Occupational	Adult Education ² / ₃	General Adult	
Region M	600	190	1,050	790	3,090	2,240	870	8,830
Fayetteville T.I. (Cumberland)		130	950	680	2,580	1,910	250	7,060
Sampson T.I.		60	100	110	510	330	620	1,770
Region N	620	100	250	460	640	720	360	3,150
Bladen T.I.		70	60	180	180	110	160	900
Robeson T.I.		30	190	280	460	610	200	2,250
Region O	560	160	1,010	960	1,800	1,620	1,200	7,310
Cape Fear T.I. (New Hanover)		60	680	580	1,580	920	790	5,010
Southeastern C.C. (Columbus)	160	100	330	380	220	700	410	2,300
Region P	1,800	460	1,780	2,400	2,920	3,120	1,660	14,140
Carteret T.I.		80	130	340	190	130	150	1,120
Coastal Carolina C.C. (Onslow)	820	40	220	260	1,110	670	600	3,720
Craven C.C.	280	140	180	280	320	760	160	2,120
James Sprunt Institute (Duplin)		120	170	320	260	120	220	1,340
Lenoir C.C.	160	20	380	700	490	780	270	2,800
Pamlico T.I.		20	60	80	150	60	60	450
Wayne C.C.	320	40	640	440	400	570	180	2,590
Region Q	760	180	1,120	1,560	1,160	1,820	720	7,320
Beaufort County T.I. ⁴ / ₄		50	240	320	510	400	100	1,740
Martin T.I.	80	50	230	240	140	330	70	1,140
Pitt T.I.	360	50	460	580	370	430	370	2,620
Roanoke-Chowan T.I. (Hertford)		30	190	420	140	660	190	1,820
Region R	280	80	260	160	100	360	80	1,320
College of Albemarle (Pasquotank)	280	80	260	160	100	360	80	1,320
State Total	13,780	3,680	28,200	26,100	27,440	31,200	15,900	146,300

Exhibit 4 (Continued)

- 1/ College Transfer enrollments based on manpower requirements only, thus representing minimum levels of effort. Regional College Transfer totals include unexpended allocations to institutions currently without or not yet approved to offer such programs (note text for elaboration).
- 2/ Adult Education includes Adult High School, Adult Basic, and Learning Laboratory Extension programs.
- 3/ Institutional totals include unexpended allocations of regional College Transfer enrollments.
- 4/ Institutions that have recently been approved by the State Board of Education to offer College Transfer programs.

SOURCE: Research Triangle Institute.

EXHIBIT 5. Projections of Annual Average Enrollment Potential by Major Program Area, 1975-1980
(Average Annual Induplicated Headcount Basis)

Region Institution (County)	Curriculum					Extension			Total ^{3/}
	College ^{1/} Transfer	General Education	Technical	Vocational	Occupational	Adult High School ^{2/}	Adult Basis	General Adult	
Region A	1,360	839	700	1,030	4,010	3,560	2,280	4,520	18,290
Haywood T.I.		80	380	510	1,640	1,090	690	1,090	6,090
Southwestern T.I. (Jackson)		630	210	230	1,550	1,320	850	2,000	7,300
Tri-County T.I. (Cherokee)		120	110	290	820	1,150	740	1,430	4,900
Region B	130	570	1,550	1,250	8,850	4,910	3,560	8,000	28,800
Asheville-Buncombe T.I.		140	1,220	860	4,670	3,270	2,360	2,000	14,620
Blue Ridge T.I. (Henderson)		430	330	390	4,180	1,640	1,180	6,000	14,180
Region C	1,320	1,230	1,500	1,250	6,510	5,100	3,560	6,430	26,900
Cleveland T.I.		420	1,140	600	4,000	2,550	1,780	3,300	14,420
Isothermal C.C. (Rutherford)	400	670	180	470	1,800	1,960	1,370	2,430	9,280
McDowell T.I.		140	180	180	710	590	410	700	3,160
Region D	1,420	340	1,210	550	4,400	4,800	2,370	5,110	20,700
Mayland T.I. (Mitchell)		130	240	390	1,800	2,010	990	1,000	6,780
Wilkes C.C.	1,200	710	970	160	2,600	2,790	1,360	4,110	12,920
Region E	1,580	1,600	3,310	1,780	18,020	6,890	4,440	13,850	51,470
Caldwell C.C. & T.I.		370	180	370	6,420	3,120	2,020	5,690	18,350
Catawba Valley T.I.	180	400	1,900	1,010	6,170	2,130	1,370	5,830	19,680
Western Piedmont C.C. (Burke)	530	830	1,230	400	5,430	1,640	1,050	2,330	13,440
Region F	2,200	6,690	12,500	6,810	54,140	10,320	6,870	42,030	141,560
Central Piedmont C.C. (Mecklen.)	1,440	4,500	9,600	3,900	23,600	1,330	880	12,090	57,250
Gaston College		500	1,200	1,320	8,830	4,570	3,040	12,500	32,240
Mitchell C.C. (Iredell)	220	290	450	550	3,780	920	620	1,430	8,260
Rowan T.I.		400	930	730	10,800	2,600	1,730	11,600	28,960
Stanly T.I.		1,000	320	310	7,130	900	600	4,500	14,850

36

29

Exhibit 5 (Continued)

Region Institution (County)	Curriculum					Extension			Total ^{3/}
	College Transfer ^{1/}	General Education	Technical	Vocational	Occupational	Adult High School ^{2/}	Adult Basis	General Adult	
Region M	920	980	2,050	1,220	20,050	5,250	6,180	13,860	50,310
Fayetteville T.I. (Cumberland)		760	1,900	1,080	16,130	4,620	5,430	5,000	35,780
Sampson T.I.		220	150	140	3,920	550	750	8,860	14,730
Region N	970	620	490	700	4,170	3,380	1,730	3,700	15,760
Bladen T.I.		500	90	300	1,290	810	410	850	4,460
Robeson T.I.		120	400	400	4,880	2,570	1,320	2,860	11,300
Region O	970	1,010	1,260	1,430	12,630	4,760	4,220	9,520	35,800
Cape Fear T.I. (New Hanover)		380	760	760	9,880	3,480	3,090	4,390	23,430
Southeastern C.C. (Columbus)	280	630	500	670	2,750	1,280	1,130	5,130	12,370
Region P	4,370	3,390	3,120	3,150	28,700	12,020	11,570	23,350	89,670
Carteret T.I.		380	230	560	1,900	470	460	1,150	3,360
Coastal Carolina C.C. (Onslow)	2,280	320	590	430	11,100	3,790	3,650	12,000	31,170
Craven C.C.	460	950	300	360	3,560	2,590	2,480	2,000	12,880
James Sprunt Institute (Duplin)		440	230	380	1,860	450	430	2,000	5,990
Lenoir C.C.	250	670	760	830	4,900	2,340	2,250	2,450	14,490
Familico T.I.		150	180	120	940	150	150	750	2,470
Wayne C.C.	890	500	830	470	4,440	2,230	2,150	3,000	14,510
Region Q	1,440	2,260	1,640	1,970	8,080	7,210	3,520	8,420	34,540
Beaufort County T.I. ^{4/}		180	340	360	2,320	1,970	890	1,430	7,720
Martin T.I.	150	160	350	340	1,560	1,630	730	880	5,500
Pitt T.I.	680	420	700	670	2,640	2,120	950	4,110	12,290
Roanoke-Chowan T.I. (Hertford)		1,500	250	600	1,560	1,490	950	2,000	8,730
Region R	470	570	370	160	1,250	1,460	940	1,000	6,220
College of Albemarle (Pasquotank)	470	570	370	160	1,250	1,460	940	1,000	6,220
State Total	24,630	36,480	49,530	38,250	269,960	121,020	80,260	225,160	845,290

Exhibit 5 (Continued)

- 1/ College Transfer enrollments based on manpower requirements only, thus representing minimum levels of effort. Region College Transfer totals include unexpended allocations to institutions currently without or not yet approved to offer such programs (note text for elaboration).
- 2/ Adult Education includes Adult High School, Adult Basic, and Learning Laboratory Extension programs.
- 3/ Institutional totals include unexpended allocations of regional College Transfer enrollments.
- 4/ Institutions that have recently been approved by the State Board of Education to offer College Transfer programs.

SOURCE: Research Triangle Institute.

Graham, Haywood, Jackson, Macon, and Swain. The total population of the Region was estimated to be 119,900 persons in 1973, of which 84,400 persons, or 70.4 percent, were estimated to be aged 18 years and over. Region A was estimated to contain 2.3 percent of the total North Carolina population in 1973. Haywood is the most populous county, with an estimated 42,300 persons in 1973 (35.3 percent of the Regional total); Clay is the least populous county, with an estimated 5,200 persons in 1973 (4.3 percent of the regional total). Waynesville (Haywood County) is the largest population center in the Region.

Manufacturing comprises approximately 33 percent of total Regional employment. The primary employing industry is textiles; other major industries include lumber and wood, furniture, and paper manufacturing, and various activities related to tourism.

Three technical institutes--Haywood, Southwestern (Jackson County), and Tri-County (Cherokee County)--are located in Region A. Western Carolina University, a public senior institution of higher education, is located in Jackson County. Although the Community College System attracts individuals from all backgrounds and age groups over age 18, a primary source of new enrollments is recent high school graduates; the rate at which area high school graduates enrolled in this system within two quarters after graduation rose from 16.9 percent in 1972 to 21.1 percent in 1974.

All Community College System institutions in Region A began as industrial education extension units of Asheville-Buncombe Technical Institute during 1964 and 1965. Tri-County Technical Institute operated on a contractual basis under the Cherokee County Board of Education beginning in 1967, and gained independent status in 1971; Southwestern and Haywood Technical Institutes gained independent status in 1968 and are the largest institutions in the Region at the present time. From rapid initial growth, all have slowed to moderate rates of growth in recent years. Total employment in the Region, estimated to be 40,150 jobs in 1972, is projected to rise to 47,700 jobs in 1985. Employment opportunities of 25,000 jobs are expected to become available during the 1970-1985 period; these jobs will become available through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth by employed persons in 1970. The majority (62.8 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 20.0 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 3,920 enrollees over the 1975-1980 period, up from 2,466 enrollees during 1973-1974. This represents an increase of 59.0 percent when compared to 1973-1974.

B. Region B

Region B is located in the southern mountains and contains the following four counties: Buncombe, Madison, Henderson, and Transylvania. The total population of the Region was estimated to be 229,600 persons in 1973, of which 162,700 persons, or 70.9 percent, were estimated to be aged 18 years and over. Region B was estimated to contain 4.4 percent of the total North Carolina population in 1973. Buncombe is the most populous county, with an estimated 148,500 persons in 1973 (64.7 percent of the Regional total); Madison is the least populous county, with an estimated 16,000 persons in 1973 (7.0 percent of the Regional total). Asheville (Buncombe County) is the largest population center in the Region; the Asheville Standard Metropolitan Statistical Area contains both Buncombe and Madison Counties.

Two technical institutes--Asheville-Buncombe and Blue Ridge (Henderson County)--are located in Region B. In addition, the University of North Carolina at Asheville; Warren Wilson College, a private senior institution of higher education; and Montreat-Anderson College, a private junior institution of higher education, are located in Buncombe County. Mars Hill College, another private senior college, is located in Madison County and Brevard College, a private junior college, is located in Transylvania County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation rose from 15.3 percent to 17.3 percent between 1972 and 1973, then slipped back to 15.4 percent in 1974. Unduplicated headcount enrollments in the Region's two technical institutes rose from 6,487 in 1968-1969 (2.7 percent of the State total) to 11,117 in 1973-1974 (2.8 percent of the State total). Blue Ridge Technical Institute opened its doors in 1969 and is currently growing more rapidly than Asheville-Buncombe which opened in 1961 as the Asheville-Buncombe Industrial Education Center but was converted to technical institute status in 1964.

Various activities related to tourism dominate the employment picture of the Region. Manufacturing comprises approximately 33 percent of total Regional employment. Total employment in the Region, estimated to be 93,820 jobs in 1972, is projected to rise to 112,900 jobs in 1985 as current

diversification trends continue. Employment opportunities of 64,600 jobs are expected to become available during the 1970-1985 period; these jobs will become available through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth by employed persons in 1970. The majority (63.0 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 19.8 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 4,300 enrollees over the 1975-1980 period, up from 2,657 full-time equivalent enrollees during 1973-1974. This represents an increase of 61.8 percent when compared to 1973-1974.

C. Region C

Region C is the southern portion of the eastern foothills of the North Carolina mountains and contains the following four counties: Cleveland, McDowell, Polk and Rutherford. The total population of the Region was estimated to be 167,200 persons in 1973, of which 114,500 persons, or 68.5 percent, were estimated to be aged 18 years and over. Region C was estimated to contain 3.2 percent of the total North Carolina population in 1973. Cleveland is the most populous county, with an estimated 74,400 persons in 1973 (44.5 percent of the Regional total); Polk is the least populous county, with an estimated 12,200 persons in 1973 (7.3 percent of the Regional total). Shelby (Cleveland County) is the largest population center in the Region.

Two technical institutes--Cleveland and McDowell--and one community college--Isothermal (Rutherford County)--are located in Region C. In addition, Gardner-Webb College, a private senior institution of higher education, is located in Cleveland County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation rose from 18.2 percent in 1972 to 21.7 percent in 1973, then dropped slightly to 20.9 percent in 1974. Unduplicated headcount enrollments in the two technical institutes and the community college of the Region rose from 6,667 in 1968-1969 (2.8 percent of the State total) to 11,060 in 1973-1974 (2.8 percent of the State total). Cleveland County Technical Institute opened its doors in 1965 and is the fastest growing of the three Community

College System institutions in the Region. McDowell Technical Institute began as the McDowell Industrial Education Center in 1964 as a satellite unit of the Asheville-Buncombe Technical Institute, but became a contractual unit of the North Carolina Department of Community Colleges in 1967. Isothermal Community College was established in 1966.

Manufacturing comprises approximately 50 percent of total Regional employment with textiles being the primary industry of the Region. Total employment in the Region, estimated to be 71,310 jobs in 1972, is projected to rise to 85,300 jobs in 1985. Employment opportunities of 47,600 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (66.3 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 14.9 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 4,360 enrollees over the 1975-1980 period, up from 2,190 full-time equivalent enrollees during 1973-1974. This represents an increase of 99.1 percent when compared to 1973-1974.

D. Region D

Region D is located in the mountainous northwest corner of North Carolina and contains the following seven counties: Alleghany, Ashe, Avery, Mitchell, Watauga, Wilkes and Yancey. The total population of the Region was estimated to be 146,700 persons in 1973, of which 101,600 persons, or 69.3 percent were estimated to be aged 18 years and over. Region D was estimated to contain 2.8 percent of the total North Carolina population in 1973. Wilkes is the most populous county, with an estimated 52,500 persons in 1973 (35.8 percent of the Regional total); Alleghany is the least populous county, with an estimated 8,500 persons in 1973 (5.8 percent of the Regional total). Wilkesboro-North Wilkesboro (Wilkes County) is the largest population center in the Region.

Mayland Technical Institute (Mitchell County) and Wilkes Community College are located in Region D. In addition, Appalachian State University is located in Watauga County and Lees-McRae College, a private junior college, is located in Avery County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation dropped from 20.3 percent in 1972 to 19.6 percent in 1973, then rose sharply to 21.7 percent in 1974. Unduplicated headcount enrollments in the technical institute and the community college of the Region rose from 3,066 in 1968-1969 (1.3 percent of the State total) to 9,147 in 1973-1974 (2.3 percent of the State total). Mayland Technical Institute opened its doors in 1971 with an unduplicated headcount enrollment of 1,650 and has now begun to grow rapidly. Wilkes Community College has grown rapidly each year since its opening in 1965.

Manufacturing comprises approximately 34 percent of total Regional employment representing limited levels of apparel, textiles and furniture industries. More recently increases in the recreational industry have helped offset the dominance of poverty in the Region. Total employment in the Region, estimated to be 53,570 jobs in 1972, is projected to rise to 62,700 jobs in 1985. Employment opportunities of 31,800 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (65.5 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 16.6 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 3,640 enrollees over the 1975-1980 period, up from 1,902 full-time equivalent enrollees during 1973-1974. This represents an increase of 91.4 percent when compared to 1973-1974.

E. Region E

Region E is located in the eastern mountain foothills of North Carolina and contains the following four counties: Alexander, Burke, Caldwell and Catawba. The total population of the Region was estimated to be 238,100 persons in 1973, of which 160,600 persons, or 67.5 percent, were estimated to be aged 18 years and over. Region E was estimated to contain 4.5 percent of the total North Carolina population in 1973. Catawba is the most populous county, with an estimated 95,700 persons in 1973 (40.2 percent of the Regional total); Alexander is the least populous county, with an estimated 21,500 persons in 1973 (9.0 percent of the Regional total). Hickory-Newton (Catawba County) is the largest population center in the Region.

Caldwell Community College and Technical Institute, Catawba Valley Technical Institute, and Western Piedmont Community College (Burke County) are located in Region E. In addition, Lenoir Rhyne College, a private senior institution of higher education, is located in Catawba County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation dropped from 21.0 percent in 1972 to 19.4 percent in 1973, then rose sharply to 22.4 percent in 1974. Unduplicated headcount enrollments in the three technical institutes and community colleges of the Region rose from 19,111 in 1968-1969 (7.9 percent of the State total) to 33,202 in 1973-1974 (8.3 percent of the State total). Caldwell Community College and Technical Institute and Western Piedmont Community College opened in 1965. Catawba Valley Technical Institute opened in 1960 as the Catawba County Industrial Education Center and was elevated to technical institute status in 1964; it is currently the largest of the three institutions in Region E, although both Caldwell and Western Piedmont are growing more rapidly at the present time.

Manufacturing comprises approximately 57 percent of total Regional employment with furniture and textiles being the primary industries in the Region. Total employment in the Region, estimated to be 125,810 jobs in 1972, is projected to rise to 165,000 jobs in 1985. Employment opportunities of 112,975 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or

withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (68.1 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 13.2 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 8,600 enrollees over the 1975-1980 period, up from 4,559 full-time equivalent enrollees during 1973-1974. This represents an increase of 88.6 percent when compared to 1973-1974.

F. Region F

Region F is the southwest portion of the piedmont crescent area of North Carolina and contains the following eight counties: Cabarrus, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Stanly and Union. The total population of the Region was estimated to be 909,400 persons in 1973, of which 614,700 persons, or 67.6 percent, were estimated to be aged 18 years and over. Region E was estimated to contain 17.2 percent of the total North Carolina population in 1973. Mecklenburg is the most populous county, with an estimated 370,000 persons in 1973 (40.7 percent of the Regional total); Lincoln is the least populous county, with an estimated 35,600 persons in 1973 (3.9 percent of the Regional total). Charlotte (Mecklenburg County) is the largest population center in the Region; the Charlotte-Gastonia Standard Metropolitan Statistical Area contains Gaston, Mecklenburg and Union Counties.

There are two technical institutes--Rowan and Stanly--, three community colleges--Central Piedmont (Mecklenburg County), Mitchell (Iredell County), and Gaston College located in Region F. The University of North Carolina at Charlotte is located in Mecklenburg County. There is one private junior college in the Region, Wingate College (Union County). In addition, there are nine private senior institutions of higher education in Region F--Barber-Scotia College (Cabarrus County), Belmont Abbey College (Gaston County), Catawba College (Rowan County), Davidson College (Mecklenburg County), Johnson C. Smith University (Mecklenburg County), Livingston College (Rowan County), Pfeiffer College (Stanly County), Queens College

(Mecklenburg County) and Sacred Heart College (Gaston County). The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation rose from 18.1 percent in 1974 to 19.8 percent in 1973, but remained constant at 19.8 percent in 1974. Unduplicated headcount enrollments in the five institutions that are members of the Community College System of the Region rose from 32,476 in 1968-1969 (13.5 percent of the State total) to 61,577 in 1973-1974 (15.4 percent of the State total). Mitchell Community College (formerly Mitchell College, a private two-year institution) joined the Community College System in 1973 and is expected to grow rapidly. Stanly Technical Institute opened in 1971 and has begun to expand program offerings and enrollment levels. Gaston College was formed in 1965 by the merger of three existing institutions: Gaston Technical Institute, founded in 1952 under the sponsorship of North Carolina State University; the Gastonia Industrial Education Center established in 1958; and Gaston College, a public junior college, chartered in 1963. Rowan Technical Institute opened in 1963. Central Piedmont Community College opened in 1958 as an industrial education center, and became a community college in 1964. It is currently the largest institution in terms of enrollment levels in the Community College System.

Manufacturing comprises approximately 35.7 percent of total Regional employment with trade being the dominant industry of the Region. Total employment in the Region, estimated to be 450,260 jobs in 1972, is projected to rise to 597,000 jobs in 1985. Employment opportunities of 401,416 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (64.8 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 17.5 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 23,600 enrollees over the 1975-1980 period, up from 12,453 full-time equivalent enrollees during 1973-1974. This represents an increase of 89.5 percent when compared to 1973-1974.

G. Region G

Region G is the northern central portion of the piedmont crescent area of North Carolina and contains the following 11 counties: Alamance, Caswell, Davidson, Davie, Forsyth, Guilford, Randolph, Rockingham, Stokes, Surry and Yadkin. The total population of the Region was estimated to be 1,022,100 persons in 1973, of which 695,500 persons, or 68.1 percent, were estimated to be aged 18 years and over. Region G was estimated to contain 19.4 percent of the total North Carolina population in 1973. Guilford is the most populous county, with an estimated 298,700 persons in 1973 (29.2 percent of the Regional total); however, the Forsyth population in 1973 was almost as great, with an estimated 224,500 persons (22.0 percent of the Regional total). Caswell and Davie Counties are the least populous counties, each with an estimated 19,600 persons in 1973 (each being 1.9 percent of the Regional total). Winston-Salem and Greensboro are the largest population centers in the Region. The Greensboro - Winston-Salem - High Point Standard Metropolitan Statistical Area contains six counties--Davidson, Forsyth, Guilford, Randolph, Stokes and Yadkin; the Burlington Standard Metropolitan Statistical Area contains only Alamance County.

There are three community colleges--Davidson, Rockingham and Surry--and four technical institutes--Forsyth, Guilford, Randolph and Alamance--located in Region G. Four public senior institutions of higher education are in the Region: Winston-Salem State University, in Forsyth County; University of North Carolina at Greensboro, North Carolina School of the Arts, and North Carolina Agricultural and Technical State University in Guilford County. Likewise, seven private senior institutions of higher education are in the Region: Bennett College, Greensboro College, Guilford College and High Point College in Guilford County; Salem College and Wake Forest University in Forsyth County; and Elon College in Alamance County. In addition, there are two private Bible colleges in the Region: Piedmont Bible College in Forsyth County and John Wesley College in Guilford County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation rose slightly from 17.2 percent in 1972 to 17.9 percent in 1974. Unduplicated headcount enrollments

in the seven technical institutes and community colleges of the Region rose from 35,334 in 1968-1969 (14.7 percent of the State total) to 64,042 in 1973-1974 (16.0 percent of the State total). Rockingham Community College opened in 1966 incorporating Rockingham Industrial Education Center which was established in 1958 and is one of the younger institutions in Region G. Surry Community College opened shortly before in 1965. Davidson County Community College began operation in 1963 as the Davidson County Industrial Education Center and converted to community college status in 1965. All four technical institutes in Region G opened prior to 1963 as industrial education centers and later converted to technical institute status. Guilford Technical Institute is currently the largest of the institutions in the Community College System in Region G and has grown rapidly since its inception. Forsyth Technical Institute has begun to grow rapidly in recent years as well. Randolph Technical Institute and the Technical Institute of Alamance, while smaller, have been expanding at steady rates of growth.

Manufacturing comprises approximately 40 percent of total Regional employment with textiles, furniture and tobacco being the primary industries in the Region. Total employment in the Region, estimated to be 499,260 jobs in 1972, is projected to rise to 635,400 jobs in 1985. Employment opportunities of 409,671 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (66.0 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 16.1 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 27,960 enrollees over the 1975-1980 period, up from 12,111 full-time equivalent enrollees during 1973-1974. This represents an increase of 130.9 percent when compared to 1973-1974.

H. Region H

Region H is located in the southern sandhills portion of the piedmont area of North Carolina and contains the following four counties: Anson, Montgomery, Moore and Richmond. The total population of the Region was estimated to be 124,000 persons in 1973, of which 83,400 persons, or 67.3 percent, were estimated to be aged 18 years and over. Region H was estimated to contain 2.4 percent of the total North Carolina population in 1973. Moore County is the most populous county, with an estimated 41,400 persons in 1973 (33.4 percent of the Regional total); Montgomery is the least populous county, with an estimated 19,100 persons in 1973 (15.4 percent of the Regional total). Rockingham is the largest population center in the Region.

There are three technical institutes--Anson, Montgomery and Richmond--and Sandhills Community College (Moore County) located in Region H. No additional institutions of higher education are in the Region. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation dropped from 24.7 percent in 1972 to 23.1 percent in 1973, then rose to 25.4 in 1974. Unduplicated headcount enrollments in the three technical institutes and one community college of the Region rose from 9,461 in 1968-1969 (3.9 percent of the State total) to 16,369 in 1973-1974 (4.1 percent of the State total). Montgomery Technical Institute is the youngest institution in the Community College System in Region H, beginning operation in 1967. Sandhills Community College, which opened in 1965, and Richmond Technical Institute, which was established in 1964, are the largest of these institutions. Anson Technical Institute began as the Ansonville Unit of the Charlotte Industrial Education Center in 1962, was established as Anson Technical Institute in 1967 for operation on a contractual basis with the Anson County Board of Education, and became a separately chartered institution in 1971.

Manufacturing comprises approximately 38 percent of total Regional employment with textiles and tourism being the primary industries in the Region. Total employment in the Region, estimated to be 50,240 jobs in 1972, is projected to rise to 60,342 jobs in 1985. Employment opportunities

of 34,131 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (65.0 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 16.7 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 5,130 enrollees over the 1975-1980 period, up from 3,787 full-time equivalent enrollees during 1973-1974. This represents an increase of 35.5 percent when compared to 1973-1974.

J. Region J

Region J, the triangle area, is located in the central portion of the State bordering on both the piedmont and coastal plains areas of North Carolina and contains the following six counties: Chatham, Durham, Johnston, Lee, Orange and Wake. The total population of the Region was estimated to be 578,300 persons in 1973, of which 393,400 persons, or 68.0 percent, were estimated to be aged 18 years and over. Region J was estimated to contain 11.0 percent of the total North Carolina population in 1973. Wake County is the most populous county, with an estimated 250,800 persons in 1973 (43.4 percent of the Regional total); Chatham is the least populous county, with an estimated 29,300 persons in 1973 (5.1 percent of the Regional total). Durham and Raleigh are the largest population centers in the Region. The Raleigh-Durham Standard Metropolitan Statistical Area contains Durham, Orange and Wake Counties.

There are four technical institutes--Central Carolina (Lee), Durham, Johnston and Wake--located in Region J. Three public senior institutions of higher education are in the Region: North Carolina Central University, in Durham County; North Carolina State University at Raleigh, in Wake County; and University of North Carolina at Chapel Hill, in Orange County. Also, there are four private senior institutions of higher education in the Region: Meredith College, Saint Augustine's College and Shaw University in Wake

County; and Duke University, in Durham County. In addition, there are two private junior colleges, Peace College and St. Mary's Junior College, and a private theological seminary, Southeastern Baptist Theological Seminary, all in Wake County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation rose from 13.5 percent in 1972 to 15.7 percent in 1973, then dropped to 15.0 percent in 1974. Unduplicated headcount enrollments in the four technical institutes of the Region rose from 15,744 in 1968-1969 (6.5 percent of the State total) to 29,697 in 1973-1974 (7.4 percent of the State total). Johnston Technical Institute is the youngest institution in Region J, beginning operation in 1969. The other three institutions began as industrial education centers, although Durham Technical Institute actually predated the 1957 action of the North Carolina General Assembly that established industrial education centers, offering adult and practical nurse education programs under the sponsorship of the Durham City Schools as early as the late 1940's. Central Carolina Technical Institute opened in 1962, and Wake Technical Institute (formerly W.W. Holding Technical Institute) opened in 1959; Central Carolina achieved technical institute status in 1965, and Wake in 1966. Central Carolina, Durham, and Johnston Technical Institutes are growing rapidly at the present time.

Manufacturing comprises only 19 percent of total Regional employment; government employees dominate the industrial mix, although there is a significant level of services and trade. Total employment in the Region, estimated to be 276,160 jobs in 1972, is projected to rise to 386,621 jobs in 1985. Employment opportunities of 279,468 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (61.0) percent of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 22.5 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 12,040 enrollees over the 1975-1980 period, up from 6,819 full-time equivalent enrollees during 1973-1974. This represents an increase of 76.6 percent when compared to 1973-1974.

K. Region K

Region K is located in the north-central portion of North Carolina, being partially in the piedmont and partially in the coastal area, and contains the following five counties: Franklin, Granville, Person, Vance and Warren. The total population of the Region was estimated to be 137,300 persons in 1973, of which 92,100 persons, or 67.1 percent, were estimated to be aged 18 years and over. Region K was estimated to contain 2.6 percent of the total North Carolina population in 1973. Granville is the most populous county, with an estimated 32,900 persons in 1973 (24.0 percent of the Regional total); however, Vance County has only 600 fewer persons than Granville County. Warren is the least populous county, with an estimated 17,200 persons in 1973 (12.5 percent of the Regional total). Henderson is the largest population center in the Region.

There are two technical institutes--Piedmont (Person County) and Vance-Granville--located in Region K. In addition, there are two private junior colleges in the Region; Kittrell College in Vance County and Louisburg College in Franklin County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation rose from 12.5 percent in 1972 to 14.3 percent in 1973, then remained constant in 1974. Unduplicated headcount enrollments in the two technical institutes of the Region rose from 1,669 in 1969-1970, when both institutions were opened, (0.6 percent of the State total) to 9,812 in 1973-1974 (2.5 percent of the State total). Both Piedmont and Vance-Granville (formerly Vance County) Technical Institutes are relatively new institutions. Piedmont opened in 1970, and Vance-Granville in 1969. Both institutions have grown rapidly since their inception, and Vance-Granville Technical Institute is now in the process of converting to community college status.

Manufacturing comprises approximately 31 percent of total Regional employment with textiles being the leading manufacturing industry; however, agriculture is probably the primary industry in Region K. Total employment in the Region, estimated to be 58,550 jobs in 1972, is projected to rise to 65,149 jobs in 1985. Employment opportunities of 38,266 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons

of childbirth of employed persons in 1970. The majority (67.1 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 14.4 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 3,360 enrollees over the 1975-1980 period, up from 1,812 full-time equivalent enrollees during 1973-1974. This represents an increase of 84.7 percent when compared to 1973-1974.

L. Region L

Region L is located in the northwestern portion of the coastal plains area of North Carolina and contains the following five counties: Edgecombe, Halifax, Nash, Northampton and Wilson. The total population of the Region was estimated to be 248,400 persons in 1973, of which 163,300 persons, or 65.7 percent, were estimated to be aged 18 years and over. Region L was estimated to contain 4.7 percent of the total North Carolina population in 1973. Nash is the most populous county, with an estimated 61,200 persons in 1973 (24.6 percent of the Regional total); Northampton is the least populous county, with an estimated 23,600 persons in 1973 (9.5 percent of the Regional total). Rocky Mount and Wilson are the largest population centers in the Region.

There are four technical institutes--Edgecombe, Halifax County, Nash and Wilson County--located in Region L. In addition, there are two private senior institutions of higher education in the Region; Atlantic Christian College in Wilson County and North Carolina Wesleyan College in Nash County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation dropped from 18.2 percent in 1972 to 15.3 percent in 1974. Unduplicated headcount enrollments in the four technical institutions of the Region rose from 11,848 in 1968-1969 (4.9 percent of the State total) to 17,939 in 1973-1974 (4.5 percent of the State total). All institutions in Region L, with the sole exception of Wilson Technical Institute, are relatively new institutions.

Edgecombe Technical Institute is the youngest, opening in 1968; both Halifax and Nash Technical Institutes opened in 1967, first as contractual units under their respective county boards of education, and later as chartered institutions. Wilson Technical Institute is the largest of the four institutions, but both Halifax and Nash are growing rapidly at the present time. Halifax Technical Institute is currently completing the initial phases of converting to community college status.

Manufacturing comprises approximately 28 percent of total Regional employment with agriculture being the primary industry in Region L. Total employment in the Region, estimated to be 111,550 jobs in 1972, is projected to rise to 122,593 jobs in 1985. Employment opportunities of 72,719 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (65.6 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 16.3 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 7,320 enrollees over the 1975-1980 period, up from 3,318 full-time equivalent enrollees during 1973-1974. This represents an increase of 120.6 percent when compared to 1973-1974.

M. Region M

Region M is located in the east-central portion of the coastal plains area of North Carolina and contains the following three counties: Cumberland, Harnett and Sampson. The total population of the Region was estimated to be 314,000 persons in 1973, of which 205,900 persons, or 65.6 percent, were estimated to be aged 18 years and over. Region M was estimated to contain 6.0 percent of the total North Carolina population in 1973. Cumberland is the most populous county, with an estimated 215,300 persons in 1973 (68.6 percent of the Regional total); Sampson is the least populous county, with an estimated 46,600 persons in 1973 (14.8 percent of the Regional total). Fayetteville is the largest population center in the Region; the Fayetteville Standard Metropolitan Statistical Area contains only Cumberland County.

There are two technical institutes--Fayetteville (Cumberland County) and Sampson--located in Region M. One public senior institution of higher education, Fayetteville State University, is located in Cumberland County. Also, two private senior institutions of higher education are in the Region; Campbell College in Harnett County and Methodist College in Cumberland County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation rose slightly from 19.0 percent in 1972 to 19.2 percent in 1973, but dropped back to 19.0 percent again in 1974. Unduplicated headcount enrollments in the two technical institutes of the Region rose from 8,152 in 1968-1969 (3.4 percent of the State total) to 19,784 in 1973-1974 (4.9 percent of the State total). Sampson Technical Institute is the younger of the two institutions in Region M, being established in 1965 as an extension unit of Wayne Technical Institute and becoming an independent unit in 1967. Fayetteville Technical Institute opened in 1961 as an area industrial education center and converted to technical institute status in 1964. Fayetteville Technical Institute has experienced rapid growth while Sampson Technical Institute has experienced moderate growth in recent years.

Manufacturing comprises approximately 20 percent of total Regional employment with military-oriented industry being the dominant economic factor in Region M. Total employment in the Region, estimated to be 95,200 jobs in 1972, is projected to rise to 137,676 in 1985. Employment opportunities of 97,750 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (64.0 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 18.2 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 8,830 enrollees over the 1975-1980 period, up from 4,389 full-time equivalent enrollees during 1973-1974. This represents an increase of 101.2 percent when compared to 1973-1974.

N. Region N

Region N is located in the inland coastal plains area of North Carolina along the State's southern border and contains the following four counties: Bladen, Hoke, Robeson and Scotland. The total population of the Region was estimated to be 160,700 persons in 1973, of which 100,900 persons, or 62.8 percent, were estimated to be aged 18 years and over. Region N was estimated to contain 3.0 percent of the total North Carolina population in 1973. Robeson is the most populous county, with an estimated 88,300 persons in 1973 (54.9 percent of the Regional total); Hoke County is the least populous county, with an estimated 17,100 persons in 1973 (10.6 percent of the Regional total). Lumberton is the largest population center in the Region.

There are two technical institutes--Bladen and Robeson--located in Region N. One public senior institution of higher education, Pembroke State University, is located in Robeson County. In addition, one private senior institution of higher education, St. Andrews Presbyterian College, is located in Scotland County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation dropped from 18.6 percent in 1972 to 16.0 percent in 1973, then rose to 18.7 percent in 1974. Unduplicated headcount enrollments in the two technical institutes of the Region rose from 4,614 in 1968-1969 (1.9 percent of the State total) to 8,245 in 1973-1974 (2.1 percent of the State total). Bladen Technical Institute is the younger of the two institutes in Region N, opening in 1967. Robeson Technical Institute opened in 1965 and became a separately chartered institution in 1971. Robeson is the larger of the two, and both are growing at a moderate pace at the present time.

Manufacturing comprises approximately 35 percent of total Regional employment with textiles and apparel being the primary industries in Region N. Total employment in the Region, estimated to be 65,170 jobs in 1972, is projected to rise to 81,159 jobs in 1985. Employment opportunities of 53,009 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (65.4 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training.

An additional 15.8 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 3,150 enrollees over the 1975-1980 period, up from 1,623 full-time equivalent enrollees during 1973-1974. This represents an increase of 94.1 percent when compared to 1973-1974.

O. Region O

Region O is located in the southeastern tip of the coastal plains area of North Carolina and contains the following four counties: Brunswick, Columbus, New Hanover and Pender. The total population of the Region was estimated to be 189,000 persons in 1973, of which 125,200 persons, or 66.2 percent, were estimated to be aged 18 years and over. Region O was estimated to contain 3.6 percent of the total North Carolina population in 1973. New Hanover is the most populous county, with an estimated 92,100 persons in 1973 (48.7 percent of the Regional total); Pender is the least populous county, with an estimated 18,800 persons in 1973 (9.9 percent of the Regional total). Wilmington is the largest population center in the Region; Wilmington Standard Metropolitan Statistical Area contains Brunswick and New Hanover Counties.

Cape Fear Technical Institute in New Hanover County and Southeastern Community College in Columbus County are located in Region O. Also, one public senior institution of higher education, the University of North Carolina at Wilmington, is located in New Hanover County. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation dropped from 19.3 percent in 1972 to 14.9 percent in 1973, then rose to 18.9 percent in 1974. Unduplicated headcount enrollments in the technical institute and community college of the Region rose from 13,961 in 1968-1969 (5.8 percent of the State total) to 17,311 in 1973-1974 (4.3 percent of the State total). Southeastern Community College opened in 1965 and has grown steadily since that time. Cape Fear Technical Institute began as an area industrial education center in 1959 and converted to technical institute status in 1964. Cape Fear Technical Institute has grown rapidly and is presently the larger of the two institutions in Region O.

Manufacturing comprises approximately 24 percent of total Regional employment with port-oriented industries being the dominant economic factor in Region O. Total employment in the Region, estimated to be 76,420 jobs in 1972, is projected to rise to 96,525 jobs in 1985. Employment opportunities of 61,921 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (63.6 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 18.6 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 7,310 enrollees over the 1975-1980 period, up from 4,011 full-time equivalent enrollees during 1973-1974. This represents an increase of 82.2 percent when compared to 1973-1974.

P. Region P

Region P is located in the east-central coastal area of North Carolina and contains the following nine counties: Carteret, Craven, Duplin, Greene, Jones, Lenoir, Onslow, Pamlico and Wayne. The total population of the Region was estimated to be 413,100 persons in 1973, of which 272,500 persons, or 66.0 percent were estimated to be aged 18 years and over. Region P was estimated to contain 7.8 percent of the total North Carolina population in 1973. Onslow is the most populous county, with an estimated 94,200 persons in 1973 (22.8 percent of the Regional total); Pamlico is the least populous county, with an estimated 9,400 persons in 1973, but Jones is close with an estimated 9,700 persons in 1973. Goldsboro and Kinston are the largest populations centers in the Region.

There are four technical institutes--Carteret, James Sprunt, (Duplin County) and Pamlico--and four community colleges--Coastal Carolina (Onslow), Craven, Lenoir and Wayne--located in Region P. In addition, Mount Olive Junior College, a private junior college, is located in Wayne County. The

rate at which area high school graduates enrolled in the Community College System within two quarters after graduation dropped from 25.5 percent in 1972 to 19.2 percent in 1974. Unduplicated headcount enrollments in the three technical institutes and four community colleges of the Region rose from 47,566 in 1968-1969 (19.7 percent of the State total) to 55,058 in 1973-1974 (13.8 percent of the State total). All institutes in Region P have been in operation since the early or mid 1960's. The four community colleges are the largest institutions. Coastal Carolina Community College began as Onslow County Industrial Education Center in 1965, became Onslow Technical Institute in 1967, and was granted community college status in 1970. Lenoir Community College opened in 1960 as the Lenoir County Industrial Education Center and became a community college in 1964. Wayne Community College also began as an industrial education center, being established in 1957. All have grown rapidly in recent years. Craven Community College is the newest Community College in Region P, growing rapidly since its inception in 1965 as Craven County Industrial Education Center, a unit of Lenoir Community College, it became independent in 1967, became Craven Technical Institute in 1970, and a Community College in 1973. James Sprunt Institute opened in 1966 and has grown rapidly since that time. Carteret Technical Institute began as an industrial education center, operated as the Carteret Unit of the Wayne Technical Institute during the mid-1960's, and achieved technical institute status in 1968, and has grown slowly since that time. Pamlico Technical Institute began as a unit of the Lenoir County Industrial Education Center in 1963 and became independent in 1967; it is currently the smallest institution in Region P, although it has experienced relatively rapid growth in recent years.

Manufacturing comprises only approximately 19 percent of total Regional employment with military-oriented industries, agriculture and forestry being the dominant economic factors in Region P. Total employment in the Region, estimated to be 138,980 jobs in 1972, is projected to rise to 167,254 jobs in 1985. Employment opportunities of 99,940 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of child-birth of employed persons in 1970. The majority (65.3 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 17.3 percent will require a college degree.

These training requirements, when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 14,140 enrollees over the 1975-1980 period, up from 9,376 full-time equivalent enrollees during 1973-1974. This represents an increase of 50.8 percent when compared to 1973-1974.

Q. Region Q

Region Q is located in the northern inland coastal plains area of North Carolina and contains the following five counties: Beaufort, Bertie, Hertford, Martin and Pitt. The total population of the Region was estimated to be 176,400 persons in 1973, of which 118,200 persons, or 67.0 percent, were estimated to be aged 18 years and over. Region Q was estimated to contain 3.3 percent of the total North Carolina population in 1973. Pitt is the most populous county, with an estimated 73,500 persons in 1973 (41.7 percent of the Region total); Bertie is the least populous county, with an estimated 20,300 persons in 1973. Greenville is the largest population center in the Region.

There are four technical institutes--Beaufort County, Martin, Pitt and Roanoke-Chowan (Hertford County)--located in Region Q. One public senior institution of higher education, East Carolina University in Pitt County, and one private junior college, Chowan College in Hertford County, are also located in Region Q. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation dropped from 21.1 percent in 1972 to 18.1 percent in 1973, then rose slightly to 18.3 percent in 1974. Unduplicated headcount enrollments in the four technical institutes of the Region rose from 11,155 in 1968-1969 (4.6 percent of the State total) to 15,526 in 1973-1974 (3.9 percent of the State total).

Martin Technical Institute is the youngest institution in Region Q, opening its doors in 1968. Roanoke-Chowan Technical Institute opened in 1967, and with Martin Technical Institute, has maintained the most consistent and rapid growth of the four institutions in the Region. Beaufort County Technical Institute opened as an industrial education center in 1962 as a branch of Lenoir County Industrial Education Center, became a branch of Pitt Technical Institute in 1963, and gained independent status in 1967. Pitt Technical Institute was chartered originally as Pitt Industrial Education Center in 1961, but converted to technical institute status in 1964; it is currently the largest of the four institutions in the Region. Both Pitt and Martin Technical Institutes are in the final stages of converting to community college status at the present time.

Manufacturing comprises only approximately 24 percent of total Regional employment with agriculture and forestry being the primary industries in Region Q. Total employment in the Region, estimated to be 76,810 jobs in 1972, is projected to rise to 88,815 jobs in 1985. Employment opportunities of 51,760 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (66.6 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 15.4 percent will require a college degree.

These training requirements when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 7,320 enrollees over the 1975-1980 period, up from 4,327 full-time equivalent enrollees during 1973-1974. This represents an increase of 69.2 percent when compared to 1973-1974.

R. Region R

Region R is located in the extreme north-eastern coastal area of North Carolina and contains the following ten counties: Camden, Chowan, Currituck, Dare, Gates, Hyde, Pasquotank, Perquimans, Tyrrell and Washington. The total population of the Region was estimated to be 99,000 persons in 1973, of which 67,000, or 67.7 percent, were estimated to be aged 18 years and over. Region R was estimated to contain 1.9 percent of the total North Carolina population in 1973. Pasquotank is the most populous county, with an estimated 27,100 persons in 1973 (27.4 percent of the Regional total); Tyrrell is the least populous county, with an estimated 3,700 persons in 1973. Elizabeth City is the largest population center in the Region. The Norfolk-Virginia Beach-Portsmouth Standard Metropolitan Statistical Area contains several counties in Virginia plus Currituck County in North Carolina.

The College of Albemarle is the only Community College System institution in Region R. In addition, one public senior institution of higher education, Elizabeth City State University in Pasquotank County, is located in the Region. The rate at which area high school graduates enrolled in the Community College System within two quarters after graduation dropped from 23.7 percent in 1972

to 19.7 percent in 1974. Unduplicated headcount enrollments in the one community college of the Region rose from 6,816 in 1968-1969 (2.8 percent of the State total) to 9,766 in 1973-1974 (2.4 percent of the State total). The College of Albemarle was established as a public junior college in 1960 and became a member of the Community College System in 1963 and has experienced slow but steady growth in recent years.

Manufacturing comprises only approximately 14 percent of total Regional employment with agriculture and forestry being the primary industries in Region R. Total employment in the Region, estimated to be 30,970 jobs in 1972, is projected to rise to 35,532 jobs in 1985. Employment opportunities of 14,571 jobs are expected to become available during the 1970-1985 period through new job growth and through the death, retirement, or withdrawal from the labor force for reasons of childbirth of employed persons in 1970. The majority (64.0 percent) of these jobs are expected to require a high school diploma or a high school diploma with post-secondary technical or vocational training. An additional 19.1 percent will require a college degree.

These training requirements when added to the training requirements estimated to be present in 1970, translate into an average annual full-time equivalent enrollment level of 1,320 enrollees over the 1975-1980 period, up from 1,056 full-time equivalent enrollees during 1973-1974. This represents an increase of 25.0 percent when compared to 1973-1974.

V. ADDITIONAL PLANNING INFORMATION

Additional materials that may be used in both systemwide and local planning are included in Appendices A and B. Table 4 in Appendix A presents the projections of 1985 employment cross-classified by 128 occupations and 36 industry groups. The first seven pages of this table present the full range of occupational employment for the first 12 industry groups only; the next set of seven pages in this table presents the full range of occupational employment for the second set of 12 industry groups; and the last set of seven pages in this table presents the full range of occupational employment in the third (last) set of 12 industry groups. The occupations are ordered within each set of seven pages, beginning with the professional, technical, and kindred occupations and ending with the lower-skilled service occupations.

Table 5 in Appendix A presents the 1985 occupational employment projections (summed over all industry groups) and compares them with 1970 estimates formed from information obtained from the North Carolina Employment Security Commission. Occupational requirements for the 1970-1985 period are then estimated as the sum of two components, as follows:

- (1) an industrial change component, which is simply the difference between projected 1985 and estimated 1970 employment in each occupation; and,
- (2) a net separations (or replacement) component, which was derived by applying separation rates estimated for each occupation to the estimated 1970 employment in each occupation. The separation rates were derived from sex-specific separation rates by occupation provided by the North Carolina Employment Security Commission; these sex-specific separation rates were based on the age distribution of employment by sex in each occupation estimated for 1970 Census information by the U.S. Bureau of Labor Statistics, and is now available in published form.^{1/}

^{1/} U.S. Department of Labor, Bureau of Labor Statistics, "Estimating the Occupational Separations from the Labor Force for States," Tomorrow's Manpower Needs, Supplement No. 4, U.S. Government Printing Office, 1974.

Percentages listed by the 1985 employment, 1970 employment, and 1970-1985 requirements entries refer to the percentage each entry represents in its column total. The occupations are blocked into major occupation groups and group totals and percentages are listed in addition to individual occupation totals and percentages.

Table 6A in Appendix A presents the projections of the educational attainment content of the projected occupational requirements. The occupational requirements totals in this table were taken from the last column of Table 5. The educational attainment distributions within each occupation that were used to separate occupational requirements into their educational attainment content are presented in Table 6B. These distributions are those projected for U.S. workers in each occupation and are consistent with overall projections of the educational attainment distribution of the U.S. employed work force prepared by the U.S. Bureau of Labor Statistics.^{1/} The percentages in this table are based on totals for each row, not column totals as in Table 5.

Appendix B presents a suggested match between the occupational categories defined by the 1970 Census of Population that are used in this report and Community College System curriculum and program codes identified in Department of Community Colleges Administrative Memorandum Number 7-1 dated February 22, 1974. More extensive matching than presented here may be used for certain occupations and curricula, particularly where a given occupation is only broadly defined or may require a wide range of education, training, and job skills. More extensive matching is also applicable for a given curriculum or program which is fairly general in scope and may serve a wide variety of occupations, fulfilling the job skills required by these occupations either in whole or in part.

^{1/}U.S. Department of Labor, Bureau of Labor Statistics, The U.S. Economy in 1985, A Summary of BLS Projections, Bulletin 1809, U.S. Government Printing Office, 1974.

The job-specific content of these occupational categories is contained in "Classified Index of Industries and Occupations,"^{1/} a companion document to the 1970 Census of Population publications of tabular information. The letter prefixes in the Community College System curriculum and program codes represent the following:

- C--college transfer programs
- G--general education programs
- T--technical programs
- V--vocational programs
- S--technical extension programs
- W--vocational extension programs.

Selected technical and vocational curriculum codes are matched with occupational codes from the Dictionary of Occupational Titles^{2/} for use in the Department of Community Colleges survey of business and industry. This matching is presented in the Department of Community Colleges Manpower Information Manual.^{3/} Such information may be used to further specify for local planning use the occupation/curriculum and program code matching presented on the following pages.

^{1/}U.S. Bureau of the Census, 1970 Census of Population, "Classified Index of Industries and Occupations," September 1971, U.S. Government Printing Office: Washington.

^{2/}U.S. Department of Labor, Manpower Administration, Dictionary of Occupational Titles, Vols. I-III, Third Edition, 1965, U.S. Government Printing Office: Washington.

^{3/}North Carolina Department of Community Colleges, Manpower Information Manual, June 1973. Raleigh.

PAGE(S) A1-A43 ~~WAS~~ (WERE) ~~MISSING~~ (REMOVED) FROM
THIS DOCUMENT PRIOR TO ITS BEING SUBMITTED TO
THE ERIC DOCUMENT REPRODUCTION SERVICE.

Appendix B

Suggested Match Between Occupational Groups and
North Carolina Department of Community Colleges Curriculum
and Program Codes

B-1

<u>Code</u> ^{1/}	<u>Title</u> ^{1/}
1	Accountants C-004 Pre-Business Administration T-016 Accounting T-018 Business Administration
2	Architects C-002 Pre-Architecture
3	Computer Specialist C-012 Pre-Mathematics T-022 Electronic Data Processing - Business V-012 Computer Operators
4	Aeronautical and Astronautical Engineers C-007 Pre-Engineering
5	Civil Engineers C-007 Pre-Engineering S-301 Civil Engineering Methods
6	Electrical and Electronic Engineers C-007 Pre-Engineering
7	Mechanical Engineers C-007 Pre-Engineering
8	Other Engineers C-007 Pre-Engineering C-008 Pre-Forestry
9	Lawyers and Judges C-010 Pre-Law
10	Librarians C-024 General Curriculum T-080 Library Assistant
11	Mathematical Specialists C-012 Pre-Mathematics
12	Registered Nurses C-023 Pre-Nursing T-059 Associate Degree Nursing (Registered Nursing) W-331 R.N. Refresher
13	Dietitians T-135 Dietetic Technology
14	Therapists C-022 Pre-Physical Therapy

Code¹

Title^{1/}

- 15 Writers, Artists, Entertainers
C-003 Pre-Art
C-006 Pre-Drama
C-009 Pre-Journalism
C-015 Pre-Music
C-037 Pre-Dancing
T-024 Broadcasting Technology
- 16 Life and Physical Scientists
C-018 Pre-Science
C-032 Pre-Textile Chemistry
S-101 Applied Chemistry
S-501 Physics: Electrical/Electronic Options
S-701 Physics: Industrial Options
S-901 Physics: Mechanical Options
- 17 Physicians, Medical and Osteopathic
C-013 Pre-Medical
- 18 Dentists
C-005 Pre-Dental
- 19 Pharmacists
C-017 Pre-Pharmacy
- 20 Other Related Practitioners
C-016 Pre-Optometry
C-021 Pre-Veterinary Medicine
T-060 Opticianry
- 21 Health Technologists and Technicians
T-004 Veterinary Medical Technology
T-005 Food Processing Technology
T-053 Medical Records Technology
T-054 Dental Hygiene
T-055 Dental Laboratory Technology
T-056 Mental Health Associate
T-061 Radiologic Technology
T-062 Physical Therapy Assistant
T-083 Recreational Therapy
T-091 Respiratory Therapy
T-092 Health Professions Assistant
T-098 Diploma Nursing Related
T-104 Nuclear Medicine Technology
T-107 Social Service Associate
T-110 Medical Laboratory Technology
T-117 Occupational Safety and Health Technology
T-138 Health Physics Technology
V-136 Human Services Technology
V-030 Medical Laboratory Assistant
V-071 Operating Room Technician
- 22 Religious Workers
C-014 Pre-Ministerial
T-057 Funeral Service Education

<u>Code</u> ^{2/}	<u>Title</u> ^{1/}
23	Social Scientists C-011 Pre-Liberal Arts
24	Social and Recreation Workers C-019 Pre-Social Work C-029 Pre-Recreational T-094 Recreation Technology V-059 Home and Family Life
25	College and University Teachers All college transfer
26	Elementary and Prekindergarten Teachers C-020 Pre-Teaching-Elementary C-035 Pre-Early Childhood Education T-073 Early Childhood Specialist
27	Secondary Teachers C-026 Pre-Teaching-Secondary
28	Other Teachers C-025 Associate Degree for Vocational Instructors T-109 Associate Degree Program for Vocational Instructors
29	Engineering and Science Technicians T-014 General Occupational Technology T-019 Avionics T-035 Traffic Engineering Technology T-037 Chemical Technology T-038 Civil Engineering Technology T-040 Computer Maintenance T-042 Furniture and Draft Designing T-043 Mechanical Drafting and Designing T-045 Electronics Engineering Technology T-047 Industrial Engineering Technology T-048 Instrumentation Technology T-050 Manufacturing Engineering Technology T-051 Mechanical Engineering Technology T-052 Environmental Engineering Technology T-065 Telephony T-066 Audiovisual Technology T-072 Technical Illustrating T-076 Furniture Design Technology T-078 Surveying (Technical Specialty) T-082 Aviation Maintenance Technology T-084 Fisheries Research and Management Technology T-085 Marine Technology

Code^{1/}

Title^{1/}

T-086 Marine Laboratory Technology
T-090 Textile Technology and Management
T-093 Wood Products Technology--Secondary
T-095 Transportation Maintenance
T-101 Plastics Technology
T-103 Environmental Science Technology
T-106 Marine Electronics Technology
T-111 Hospital Plant Engineering and Maintenance Technology
T-113 Minerals Technology
T-119 Industrial Maintenance Engineer
T-124 Marine Construction Engineering Technology
T-125 Surveying Technology
T-134 Manufacturing Research, and Development Technology
T-137 Nuclear Technology
V-014 Drafting-Furniture
V-015 Drafting-Building Trades
V-016 Electrical Drafting
V-017 Drafting-Mechanical
V-055 Industrial Laboratory Assistant
V-058 Hospital Plant Maintenance
V-063 Surveying-Road Construction
W-978 Drafting
W-989 Plastic and Mineral Products

30 Technicians except Health, Engineering, and Science

C-033 Pre-Textile Technology
T-007 Forest Management Technology
T-008 Forest Recreation Technology
T-009 Ornamental Horticulture Technology
T-011 Recreation Grounds Management Technology
T-013 Soil and Water Conservation Technology
T-014 Fish and Wildlife Management Technology
T-015 Forest Products
T-024 Broadcasting Technology
T-069 Photography Technology
T-081 Aviation Management and Career Pilot Technology
T-099 Technical Guided Studies (Preparatory Non-Credit Courses)
T-105 Commercial Fisheries Technology
T-132 Photofinishing Specialist (Technical Specialty)

31 Other Professional, Technical, and Kindred Workers

C-024 General Curriculum
C-026 Pre-Business Education
C-030 Guided Studies (Preparatory Course)
C-036 Pre-International Studies
G-020 General Education
G-030 Special Credit Student
T-070 Commercial Art and Advertising Design
T-079 Visual Merchandising
T-088 Teacher Aide
T-118 Education Aide

Code^{1/}

Title^{1/}

- T-120 Paralegal Technology
- V-088 Teacher Aide

- 32 Buyers, Purchasing Agents, and Sales Managers
 - T-020 Marketing and Retailing Technology
 - T-130 Food Marketing
 - V-006 Building Materials Management and Sales
 - W-220 Advertising
 - W-226 Marketing

- 33 Restaurant, Cafeteria, Bar Managers
 - T-074 Food Service Management
 - V-010 Culinary Science

- 34 School Administrators
 - C-026 Pre-Business Administration

- 35 Specified Managers and Administrators
 - C-034 Pre-Furniture Manufacturing
 - T-012 Floral Design and Shop Management Technology
 - T-025 Hotel and Motel Management
 - T-026 Printing Management
 - T-084 Fisheries Research and Management Technology
 - T-090 Textile Technology and Management
 - T-100 Air Traffic Management
 - T-112 Banking and Finance

- 36 Other Specified Managers and Administrators

- 37 Managers and Administrators, n.e.c., Salaried
 - C-004 Pre-Business Administration
 - C-027 Pre-Public Administration
 - T-018 Business Administration
 - T-034 Traffic and Transportation
 - T-049 Industrial Management Technology
 - T-067 Municipal Administration
 - W-221 Finance Credit
 - W-756 Administrative Management
 - W-979 Management Development Program

- 38 Managers and Administrators, n.e.c., Self-Employed
 - C-004 Pre-Business Administration
 - W-756 Administrative Management
 - W-979 Management Development Program

- 39 Insurance, Real Estate Agents, Brokers and Underwriters
 - T-127 Real Estate
 - T-128 Insurance
 - W-224 Insurance
 - W-227 Real Estate

<u>Code</u> ^{1/}	<u>Title</u> ^{2/}
40	Demonstrators, Hucksters, Peddlers
41	Sales Representative, Manufacturing Industries T-020 Marketing and Retailing Technology
42	Sales Representative, Wholesale Trade T-020 Marketing and Retailing Technology
43	Sales Clerk, Retail Trade T-020 Marketing and Retailing Technology
44	Salesmen, Retail Trade T-020 Marketing and Retailing Technology V-002 Retail Merchandising
45	Salesmen of Services and Construction T-020 Marketing and Retailing Technology
46	Other Salesworkers T-020 Marketing and Retailing Technology
47	Bank Tellers and Cashiers W-210 Hospitality W-753 General Clerical
48	Bookkeepers and Billing Clerks T-016 Accounting W-750 Accounting/Bookkeeping
49	Counter Clerks except Food W-210 Hospitality W-762 Personal Improvement
50	Enumerators and Interviewers W-753 General Clerical
51	File Clerks V-080 Unit Record Operation
52	Mail Handlers and Postal Clerks W-753 General Clerical
53	Bookkeeping and Billing Machine Operators W-750 Accounting/Bookkeeping W-752 Office Machines
54	Key Punch Operators T-022 Electronic Data Processing--Business T-023 Electronic Data Processing--Scientific W-751 Data Processing

<u>Code</u> ^{1/}	<u>Title</u> ^{1/}
55	Other Office Machine Operators V-012 Computer Operator W-752 Office Machines
56	Payroll and Timekeeping Clerks W-753 General Clerical
57	Receptionists W-210 Hospitality
58	Secretaries T-029 Secretarial--Engineering and Technical T-030 Secretarial--Executive T-031 Secretarial--Legal T-032 Secretarial--Medical T-123 Educational Secretary V-066 Hospital Ward Secretary W-754 Secretarial and Related
59	Stenographer T-028 Court Reporting
60	Telephone Operators W-210 Hospitality
61	Typists W-758 Typing and Related
62	Other Clerical Workers T-033 General Office Technology T-058 Medical Office Assistant T-080 Library Assistant T-115 Counselor Associate V-031 Medical Office Assistant V-080 Unit Record Operation W-753 General Clerical W-762 Personal Improvement
63	Apparel Craftsmen and Upholsterers V-082 Upholstering V-084 Upholstery Cutting V-086 Upholstery Sewing W-987 Textile Production and Fabrication
64	Bakers T-071 Culinary Science
65	Cabinetmakers V-007 Carpentry and Cabinet Making W-988 Woodworking Occupations

<u>Code</u> ^{1/}	<u>Title</u> ^{1/}
66	Carpenters V-007 Carpentry and Cabinet Making W-974 Carpentry W-988 Woodworking Occupations
67	Excavating, Grading, Road Machine Operators V-026 Heavy Equipment Mechanics (Earth Moving) V-064 Heavy Equipment Operator
68	Electricians T-039 Electromechanical Technology T-044 Electrical Engineering Technology V-018 Electrical Installation and Maintenance V-028 Industrial Maintenance--Electromechanical V-042 Electronic Servicing V-045 Industrial Electronics Servicing V-054 Industrial Electricity/Motors and Controls V-092 Basic Electrical Installation V-101 Electrical Appliance Servicing W-984 Electrical Construction
69	Mason and Tile Setters V-070 Masonry W-975 Masonry
70	Painters and Paperhangers W-545 Interior Design and Decorating
71	Plasterers and Cement Finishers V-070 Masonry W-975 Masonry
72	Plumbers and Pipefitters V-037 Plumbing and Pipefitting W-969 Plumbing
73	Other Construction Craftsmen T-027 Building Construction Technology T-041 Architectural Technology V-029 Light Construction W-990 Apprenticeship--Building Trades
74	Foremen, n.e.c. T-018 Business Administration W-756 Administrative Management
75	Linemen and Servicemen, Telephone and Power V-046 Telephone Installation and Maintenance V-060 Electrical Linemen

<u>Code</u> ^{1/}	<u>Title</u> ^{1/}
76	Locomotive Engineers and Firemen
77	Air Conditioning, Heating, Refrigeration Mechanics T-036 Air Conditioning and Refrigeration V-024 Air Conditioning and Refrigeration W-970 Air Conditioning
78	Aircraft Mechanics and Repairmen V-004 Air Frame and Power Plant Mechanics W-968 Aircraft Maintenance and Operations
79	Automobile Mechanics, including body V-001 Automotive Body Repair V-003 Automotive Mechanics W-971 Automotive
80	Radio and Television Repairmen V-042 Electronic Servicing
81	Other Mechanics and Repairmen T-003 Diesel and Equipment Technology V-013 Diesel Vehicle Maintenance V-033 Industrial Mechanics V-034 Marine Mechanics V-057 Instrument Mechanic V-068 Knitting Machine Fixing V-074 Outboard Motor Repair V-077 Small Engine and Equipment Repair V-078 Sewing Machine Mechanic V-085 Motorcycle Repair V-090 Vending Machine Maintenance W-986 Small Engine Repair and Services
82	Machinists, Job and Die Setters T-121 Machinist Technology V-032 Machinist
83	Sheetmetal Workers, Tinsmiths V-044 Sheet Metal
84	Tool and Die Makers V-048 Tool and Die Making
85	Other Metal Craftsmen W-980 Metal Working (including welding) W-991 Apprenticeship--Metals and Plastics Trades
86	Compositors and Typesetters V-039 Offset Printing
87	Pressmen and Plate Printers, Printing W-992 Apprenticeship--Printing Trades

<u>Code</u> ^{1/}	<u>Title</u> ^{1/}
88	Other Printing Craftsmen T-068 Commercial Graphics T-089 Visual Video Graphics V-022 Graphic Arts--Printing W-972 Blue Print Reading W-985 Graphic Arts W-992 Apprenticeship--Printing Trades
89	Stationary Engineers, Power Station Operators
90	Other Craftsmen and Kindred Workers T-075 Furniture Production T-077 Interior Design V-019 Dry Kiln Operating V-023 Pottery Production V-027 Lumber Specialists V-040 Furniture Production Assistant V-049 Watchmaking V-079 Arts and Crafts V-099 Vocational Guided Studies (Preparatory Non-Credit Courses) V-100 Commercial Fishing W-545 Interior Design and Decorating W-988 Woodworking Occupations W-994 Apprenticeship--Public Utilities Trades
91	Assemblers
92	Checkers, Examiners, Inspectors, Manufacturing
93	Garage Workers and Gas Station Attendants
94	Bottling and Canning Operatives
95	Dressmakers and Seamstresses except Factory V-069 Clothing Construction and Design V-081 Tailoring W-541 Clothing and Textiles
96	Laundry and Dry Cleaning Operatives including Ironers
97	Graders and Sorters, Manufacturing
98	Sewers and Stitchers V-035 Industrial Sewing
99	Meat Cutters and Butchers

<u>Code</u> ^{1/}	<u>Title</u> ^{1/}
100	Mine Operatives, n.e.c.
101	Packers and Wrappers, excluding Produce
102	Painters Manufactured Articles
103	Precision Machine Operatives
104	Sawyers
	V-025 Sawyer
	V-041 Saw Filer
105	Stationary Firemen
106	Textile Operatives
	V-047 Textile Production
	W-987 Textile Production and Fabrication
107	Welders and Flame-cutters
	V-050 Welding
	W-980 Metalworking (Including Welding)
108	Metalworking Operatives
	W-980 Metalworking (Including Welding)
109	Other Specified Operatives
	V-087 Waste Water Treatment Plant Operator
110	Miscellaneous and not specified Operatives
111	Transport Equipment Operatives
	V-083 Truck Driver Training
112	Labors except Farm
113	Farm and Farm Managers
	C-001 Pre-Agriculture
	T-001 Agricultural Business Technology
	T-002 Agricultural Chemical Technology
	T-006 Agricultural Research Technology
	T-010 Poultry and Livestock Technology
	T-017 Agricultural Science and Mechanization
	T-122 Orchard Management and Horticulture
	T-126 Agricultural Science
	T-131 Horticulture Business Technology
	T-133 Agricultural Management Technology
	V-020 Farm Machinery Mechanics
	V-021 Horticulture
	V-056 Floral Design
	V-061 Taxidermy

Code^{1/}

Title^{2/}

- V-062 Farriering
 - W-111 Agricultural Production
 - W-113 Agricultural Mechanics
 - W-115 Agricultural Products and Processing
 - W-117 Ornamental Horticulture
 - W-118 Animal Science
- 114 Paid Farm Laborers and Farm Foremen
- 115 Unpaid Family Farm Workers
- 116 Cleaning Service Workers
- 117 Cooks, except Private Household
 - T-071 Culinary Science
 - V-010 Culinary Science
 - V-053 Food Preparation Specialist
 - W-542 Food Preparation
 - W-973 Seafood Occupations Training
- 118 Busboys and Dishwashers
- 119 Waiters and Food Counter Workers
 - W-542 Food Preparation
- 120 Other Food Service Workers
- 121 Health Service Workers
 - T-116 Nursing Options in Practical Nursing and Associate Degree Nursing
 - V-011 Dental Assistant
 - V-038 Practical Nursing
 - V-052 Home and Hospital Aide
 - V-065 Home Companion for the Aged
 - V-072 Nurse Assistant
 - V-073 Operating Room Assistant
 - V-075 Personal Care and Family Aide (Home Health Aide)
 - V-076 Psychiatric Aide
 - V-102 Occupational Adjustment
 - W-330 Ambulance Attendant
 - W-333 First Aid
 - W-335 P.N. Upgrading
 - W-337 Nurses' Aide
- 122 Personal Service Workers
 - V-009 Cosmetology
 - W-981 Personal Services
- 123 Firemen and Fire Protection Workers
 - T-046 Fire and Safety Engineering Technology
 - T-063 Fire Science
 - T-096 Fire Service Operation and Maintenance
 - W-982 Firemanship

<u>Code</u> ^{1/}	<u>Title</u> ^{1/}
124	Guards and Watchmen
125	Policemen and Detectives
	T-064 Police Science
	T-102 Corrections and Juvenile Delinquency
	T-129 Criminal Justice-Protective Service Technology
	W-983 Law Enforcement
126	Other Protective Service Workers
	W-314 Civil Preparedness
	W-336 Driver Education
	W-338 Safety
127	Service Workers except Private Household
	V-067 Child Care Worker
	V-089 Professional Housekeeping
	W-540 Child Care
	W-993 Apprenticeship--Service Trades
128	Private Household Workers
	V-089 Professional Housekeeping
	W-540 Child Care

^{1/}Occupation codes and titles identical to those appearing in Appendix A.